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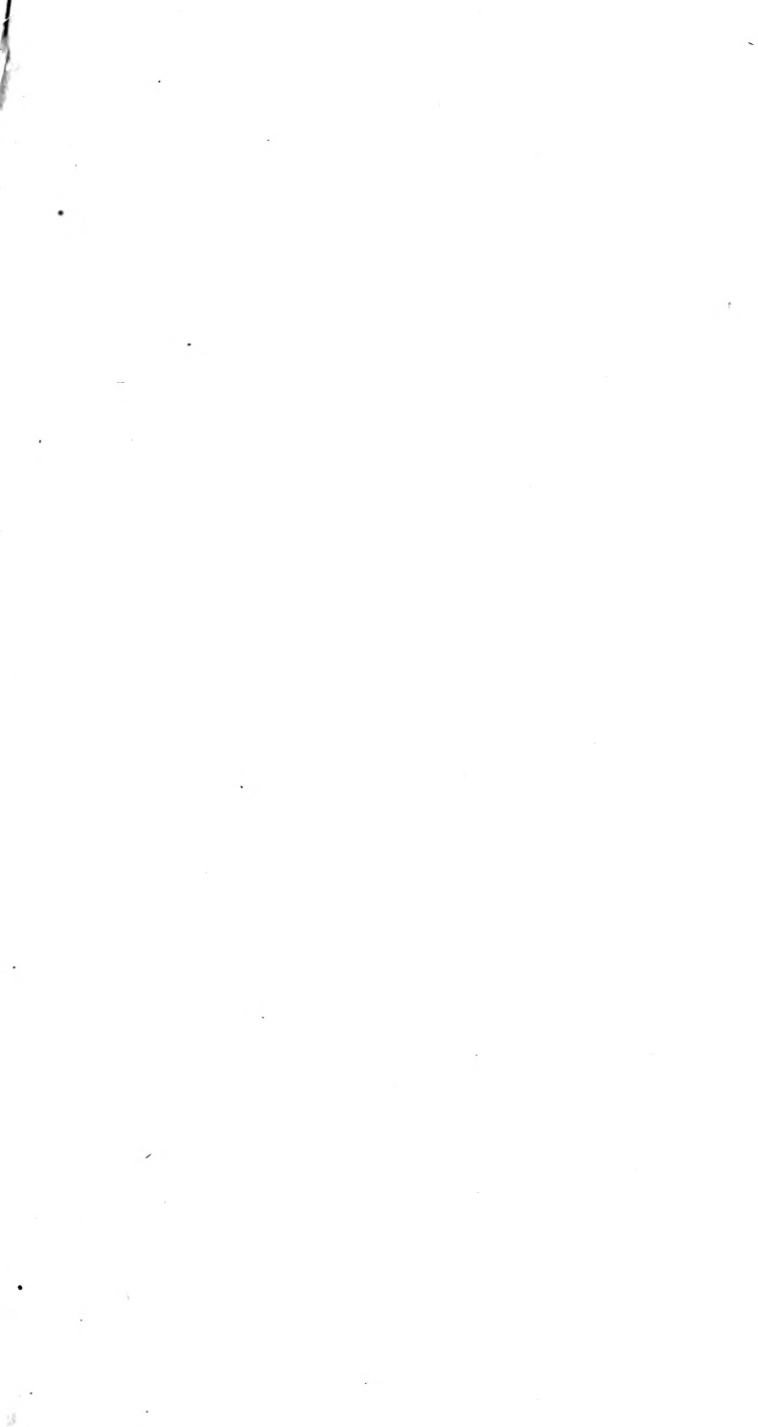


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R E V E R I E S,  
O R,  
M E M O I R S  
C O N C E R N I N G  
The A R T of W A R.

By MAURICE Count de SAXE,  
Marshal-General of the Armies of France.

To which is annexed,  
His Treatise concerning L E G I O N S ;  
O R,  
A Plan for new-modelling the French Armies.

*Illustrated with Copper-plates.*

Together with  
LETTERS on various military Subjects, wrote by the  
Marshal to several eminent Persons ; and,  
The Author's Reflections on the Propagation of the  
HUMAN SPECIES.

Translated from the FRENCH.

To which is prefixed an account of the Life of the Author.

E D I N B U R G H :

Printed by SANDS, DONALDSON, MURRAY, and COCHRAN,  
For ALEXANDER DONALDSON, at Pope's Head.

M D C C L I X.

36 2

\*AD/MS/81.9

## A short account of the Life of Marshal Count de SAXE.

**M**AURICE Count de SAXE, Marshal-General of the armies of the Most Christian King, and Duke-elect of Courland and Semigallia, was born at Dresden the 19th of October 1696. He was natural son of Frederic-Augustus II. Eleſtor of Saxony, King of Poland, and Grand Duke of Lithuania, by Aurora Counteſs Konigsmarc, youngeſt ſiſter of Philip Count Konigsmarc, who was deſcended of an illuſtrious family in Sweden, and who fell a ſacrifice for an alledged intrigue with the Princeſs of Zell.

Count Saxe diſcovered an early genius for warlike exerciſes, neglecting every ſtudy but that of war. He cultivated no foreign language but French, as if he had foreſeen that France would one day become his country, in which he would riſe to the higheſt military honours.

He accompanied the King his father in all his Poliſh campaigns, and began to ſerve in the allied army in the Netherlands, in 1708, when he was no more than twelve years old, and gave pregnant proofs of an enterpriſing genius. He afterwards ſerved in the war againſt the Swedes in Pomerania, and was made Colonel of a regiment of horſe.

He entered into the Imperial ſervice in 1717, and made ſeveral campaigns in Hungary againſt the Turks, in which he behaved with the greateſt bravery, and thereby attracted the regard of Pr. Eugene of Savoy, the moſt illuſtrious captain of his time.

In 1720 Count Saxe viſited the court of France, where he obtained a brevet of Camp-Maſhal from the Duke of Orleans, then regent of that kingdom. Two years after, he purchaſed the colonelcy of the regiment of Spar, and gradually roſe in military honours, from the rank of Colonel to that of Maſhal-General.

While the Count was reſiding in France, the ſtates of Courland, foreſeeing that their duchy would one day be without a head, Duke Ferdinand, the laſt male of the family of Ketler, being valetudinary, and likely to die without iſſue, were prevailed on, by foreign influence, to chuſe the Count to be their ſovereign. The minute of election was ſigned by the ſtates at Mittaw, the capital of Courland, on the 5th of July 1726. But this election having been vigorously oppoſed by the court of Ruſſia, and alſo by the republic of Poland, upon both of which the duchy was dependent, Count Saxe could never make good his pretenſions; ſo that, upon the death of

Duke Ferdinand in 1736, Count Biron, a gentleman of Danish extraction, in the service of Russia, was preferred before him.

When a war broke out in Germany, upon the death of the late King of Poland, our Count's father, he attended the Duke of Berwick, commander in chief of the French army sent into that country, and behaved with unparalleled bravery.

When troubles broke out in the same quarter, upon the death of the late Emperor Charles VI. Count Saxe was employed in the French army sent into the empire, to support the pretensions of the Elector of Bavaria; and had no inconsiderable hand in storming Prague; by means of which he acquired the confidence and esteem of that unfortunate prince.

When an invasion of G. Britain was projected by the court of France, in the beginning of 1744, in favour of Charles-Edward, the pretender's eldest son, C. Saxe was appointed to command the French troops to be employed on that occasion. Both the young pretender and the Count had come to Dunkirk, in order to proceed upon the intended expedition; but the design was frustrated by a furious storm, and the vigilance of the British fleet.

France having, soon after that event, declared war against G. Britain, C. Saxe was appointed commander in chief of the French army in the Netherlands, and promoted to the rank of a Marshal of France. In this high station he had full room to display his great abilities. Success crowned all his enterprises; and every town he invested, was obliged to submit to his victorious arms. During the course of the war, he beat the allies in several battles, and made himself master of the whole Austrian Netherlands, with a good part of Dutch Brabant.

Such eminent services procured him an act of naturalization by the King of France, in April 1746; in January following, he was raised to the rank of Marshal-General, an office which had been vacant for many years; and in January 1748, he was constituted Governor-General of the Netherlands, with a large revenue annexed.

After the treaty of peace at Aix-la-Chapelle in 1748, M. Saxe, covered with glory, and loaded with the King's bounties, retired to Chambord in France, where he spent his time in various employments and amusements. But being seized with a fever on the 21st of November 1750, he died on the 30th of that month. His corpse was interred on the 8th of February following, with great funeral pomp, in the church of St Thomas at Strasburg. All France lamented his death. The King was at the charge of his funeral, and expressed the greatest concern, for the loss of a man who had raised the glory of his arms to the highest pitch.

By his will, which is dated at Paris March 1. 1748, he directed that "his body should be buried in lime, if that could be done,  
" that,

“ that, in a short time, nothing more of him might remain in the “ world, but his memory among his friends.” This direction, however, was not complied with: for his corpse was embalmed, and put into a leaden coffin, which was inclosed in another of copper, and this covered with one of wood, bound about with iron. His heart was put into a silver-gilt box, and his intrails into another coffin.

M. Saxe was bred a Protestant, of the Lutheran persuasion, under the eye of the Countess his mother; and no worldly consideration could ever induce him to change his religion. He had unhappily, like his royal father, early engaged in a series of amorous adventures, and several natural children were the fruits of his vagrant amours. Though he had been prevailed on by his mother, to marry Victoria Countess of Lobin, a lady of distinguished birth and beauty, by whom he had a child or two, who died in their infancy; yet a coldness having arisen between them, the marriage was dissolved, on account of adultery committed by the Count, with a design to procure a divorce; and he never afterwards married.

The Marshal was a man of a middling stature, but of a robust constitution, and extraordinary strength. To an aspect noble, sweet, and martial, he joined the interior qualities of a most excellent heart. Affable, and affected with the misfortunes of others, he was great and generous, even more than his fortune would permit. On his deathbed he was very penitent for his lewd scenes, and reviewed the errors of his life with extreme remorse.

His *reveries*, and the *treatise concerning the legion*, with the other pieces contained in this volume, are the only works of his that have been published. He left another piece behind him in manuscript, intitled, *Observations to render a state the most flourishing in the world*; which has not yet been made public.

As the London translation of the *Reveries* was found to be faulty in many respects, and the *treatise concerning the legion*, with some of the Marshal's letters, were altogether omitted; these reasons induced the publisher to give a new edition, in which the translation has been considerably amended. And as the price of the book is now reduced one half, being no more than 7 s. neatly bound, it is hoped that the gentlemen of the army, and others, will readily approve the undertaking, by encouraging the works of this illustrious captain.

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*Pag. lin.*

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## To the BINDER.

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# P R E F A C E.

**W**AR is a science so involved in darkness, and attended with so much imperfection, that no certain rules of conduct can be given concerning it: custom and prejudice, the natural consequence of ignorance, are its sole foundation.

All other sciences are founded upon fixed principles and rules\*, but war alone is destitute of these. The celebrated captains who have wrote upon the subject, are so far from giving us any thing fundamental in the art, that their defects may be easily discovered; and their works are so intricate and indigested, that no mean parts, and no inconsiderable degree of attention and labour, are requisite to understand them: nor is it possible to form any judgment upon historians who have wrote of war, when every thing they have advanced is the product of imagination and caprice.

The mechanical part of war is insipid, and tedious in description; of which the great captains, who have wrote of it, being sensible, they have studied to be rather agreeable, than instructive, in their writings upon the subject. The few books which treat of war as an art, and that lay down any principles, are in no great esteem; nor can they be allowed their

\* War has certain rules and fixed methods of practice; but they are such only as relate to the detail, or inferior branches, and do not extend to the sublime; which last, it must be understood, the author means in this place.

due merit, till time has subverted the present system: but those which treat of it in the historical way, meet with a different reception; they are sought after by all the curious, and are carefully preserved in libraries. To the prevalence of this taste it has been owing, that we have even now but a confused idea of the discipline of the Greeks and Romans.

Gustavus Adolphus invented a method which was followed by his disciples, and by means of which great things were effected. But since his time we have gradually declined; because we have blindly adopted maxims without any examination of the principles on which they were founded: from whence proceeds that confusion of customs, where every one has assumed the privilege of adding or diminishing at pleasure. — Nevertheless these customs still remain in repute, on account of their illustrious origin. But in reading Montecuculli, who was contemporary with Gustavus, and is the only general who entered into any thing of the detail, it is very evident, that we have already departed more from his system, than he did from that of the Romans: from whence it appears, that our present practice is nothing more than a passive compliance with received customs, the grounds of which we are absolute strangers to.

The Chevalier Folard was the first who had courage enough to pass the bounds of popular prejudice. I greatly esteem his noble bravery.

Nothing



Nothing is so disgraceful as that slavish adherence to custom, which prevails at present ; and which, as I have already observed, proceeds only from ignorance. But the Chevalier goes too far ; he advances an opinion, which he pronounces infallible, without reflecting, that the success of it must depend upon an infinite number of circumstances, which human prudence cannot possibly foresee. He supposes men to be the same at all times, and always brave ; without considering that the bravery of troops is a variable and uncertain quality of mind ; and that the chief excellence of a general consists in his address to establish it in his troops, by an artful choice of dispositions and situations ; and by those peculiar strokes of genius, adapted to occasion, which characterise the great captains. Perhaps indeed he purposely reserved to himself his reflections on this subject, which is of very great extent ; or perhaps it altogether escaped him. There is, however, no part of the military system which deserves so much study and attention.

The same troops may be most certainly defeated, even in intrenchments, which, if they were to begin the attack, would be victorious. This is an instance which few have accounted for in any reasonable manner ; and it can only be ascribed to the weakness and imperfections incident to human nature ; there alone it is seated. No person has as yet treated of

this matter, which yet is of the utmost importance in war, and demands our particular regard and attention ; for otherwise we leave all events to the decision of Fortune, who is sometimes very fickle in the disposal of her favours. I shall only make use of one example, amongst a thousand others, to enforce my opinion concerning this frailty of the human heart.

After the French infantry, at the battle of Friedlingen, had repulsed the Imperialists with unparalleled fortitude ; had totally routed them, and pursued them through a wood into a plain, which lay on the other side ; some one, upon the appearance of two squadrons, (which might be French for any thing that was known to the contrary); cried out, *We are cut off!* upon which these victorious troops instantly abandoned their triumphs ; took to flight in the most dreadful confusion, without being either attacked, or pursued by a single person ; repassed the wood with the utmost precipitation, and never once halted till they had got beyond the field of battle. Marshal Villars, together with the generals of the army, took all possible pains to rally them, but to no purpose ; and yet the victory had not only been gained, but rendered at the same time so complete, that no part of the enemy attempted to make the least appearance afterwards. Nevertheless we find, that those men who in one moment had discovered such amazing intrepidity, were the same whose fears, the  
very

very next, betrayed them to a shameful flight. It was from Marshal Villars himself I had the fact, and who related it to me at Vaux-villars, when he was shewing me the plans of his battles. And whoever has curiosity enough to search for more examples of this nature, may meet with a great many in the history of all nations. This however is, at present, sufficient to prove the instability of the human heart, and how little we ought, consistently with prudence, to depend upon it. — But before I enlarge too much upon the sublime parts of war, it will be necessary to treat of the minute, by which I mean, the principles of the art.

Though those who have confined their studies to the detail, are usually accounted persons of shallow capacities; yet it is a branch which appears to me very essential, as it constitutes the foundation of a science; and as it is impossible to erect any edifice, or to establish any system, without being first acquainted with the principles that must necessarily support it. This observation the following comparison will serve to illustrate. A person who has a taste for architecture, and knows how to design, will draw the plan of a palace with great correctness; but if he is obliged to execute it, and is, at the same time, ignorant of the method of shaping his materials, and laying his foundation, the whole fabric must presently fall to ruin.

The same is the case with a general, who is unacquainted with the first principles of his profession, and the manner of forming his troops, which are qualifications indispensably necessary in whatever relates to the business of war. The remarkable victories which the Romans constantly gained, with small armies, over multitudes of barbarians, can be attributed to nothing but the excellent composition of their troops. Not that I would from hence infer, that a man of enterprise and genius will not be able to make some figure, even at the head of an army of Tartars; as it is much easier to take men as they are, than to make them what they ought to be; and as no task is more arduous, than that of reconciling the different opinions, prejudices, and passions, to which they are subject.

I shall begin with the method of raising troops, of clothing, subsisting, exercising, and forming them for action. To say that the present system of practice is totally useless and absurd, will appear a very presumptuous assertion, at a time when the power of custom is grown so absolute, that, to depart from it, is become a crime; it is, however, a more excusable one, than to introduce innovations. I declare, therefore, that my sole view and intention in what follows, is to expose the errors into which we are fallen.

The

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# M E M O I R S

CONCERNING THE

## A R T of W A R.

B O O K I.

### Of the Detail.

C H A P T E R I.

1. Of raising troops. 2. Of clothing them.
3. Of subsisting them. 4. Of paying them.
5. Of exercising them. 6. Of forming them for action.

A R T I C L E I.

*Of raising troops.*

**T**ROOPS are raised by voluntary compact, with or without writing, sometimes by compulsion, but most frequently by artifice.

When men are raised by compact, it is unjust and barbarous not to observe the compact :

A

as

as they were free at the time of contracting, it is contrary to all laws, both divine and human, not to perform the promises made to them. Nor is the service benefited by such unjustifiable proceedings : for the consequence will be, that the men will desert ; and they cannot justly be punished for it, because the faith pledged to them has been violated : so that, in such case, though military discipline requires that severe examples be made, yet such examples will appear odious and horrible. At the beginning of a campaign, however, there are many soldiers to be found whose time of service is expired ; and the captains, desirous to keep their companies complete, detain them by force : and this gives rise to the grievance I have been speaking of.

The method of making levies by artifice, is altogether scandalous and unwarrantable ; for instance, secretly conveying money into a man's pocket, and then challenging him for a soldier.—That of raising troops by compulsion, is still more so : it occasions a general depopulation, from which no person can be exempted, but by force of money ; and it is at bottom a most unjustifiable measure.

Would it not be much better to establish a law, obliging men of all conditions in life, to serve their king and country for the space of five years ? Such a law could not reasonably be objected against, as it is both natural and reasonable for people to be employed in the defence of that state of which they constitute a part.

part. In chusing them between the years of twenty and thirty, no manner of inconvenience can possibly be the result ; for those are years devoted, as it were, to libertinism, in which youth go in quest of adventures and rambles, and which afford but little comfort to parents.—An expedient of this kind could not come under the denomination of a public desolation ; because every man, at the expiration of his five years service, would be discharged : it would also create an inexhaustible fund of excellent recruits, and such as would not be apt to desert.—In course of time, every one would regard it as an honour rather than a duty, to perform his task. But, to produce this effect upon a people, it is necessary that no sort of distinction should be admitted, no rank or degree whatsoever excluded, and the nobles and rich rendered, in a principal manner, subservient to it. This would effectually prevent all murmur and repining ; for those who had served their time, would look upon such as discovered any reluctance or dissatisfaction at it, with contempt ; by which means, the grievance would vanish insensibly, and every man at length esteem it an honour to serve his term : the poor would be encouraged by the example of the rich ; and the rich could not with decency complain, seeing themselves on a footing with the nobles.

War is an honourable profession. How many princes have voluntarily condescended to carry a musket ? and how many officers have

I seen serve in the ranks after a reduction, rather than submit to live in a state of indolence and inactivity? Nothing therefore but effeminacy can make a law of this kind appear hard or oppressive.

If we take a survey of all nations at this day, what a spectacle do they exhibit to us? We behold some men rich, indolent, and voluptuous, whose happiness is produced by a multitude of others, who are employed in flattering their passions; and who subsist only, by preparing for them a constant succession of new pleasures. The assemblage of these distinct classes of men, oppressors and oppressed, forms what is called society; the refuse of which is collected, to compose the soldiery. But such measures, and such men, are far different from those by means of which the Romans conquered the universe.

Nevertheless, all things have a good as well as a bad side: and though it is certain, that nothing contributes so much to the goodness of an army, as obliging the provinces to recruit it, yet one great inconvenience results from it; that of the officers neglecting, and taking no care of the soldiers. I have almost always observed, that a large half, and sometimes three fourths of the Imperial armies, were composed of recruits; which can proceed from nothing but the little regard paid by the officers to the health and preservation of their men: if they contract any disorders, they are suffered

suffered to perish for want of proper assistance, because it is attended with some expence.

The remedy to this evil is very simple, being nothing more than to oblige the officers to pay the recruits. I would have the provinces still furnish them; but the recruiting cash should be put into the stock-purse, and the officers, as I before observed, subsist them; which would be attended with a double advantage, in being the means to preserve both men and money. For suppose an army wanted 20,000 to complete it, and the captains were obliged to pay 50 livres for every man, there would consequently be a saving of a million, and the men, at the same time, be much better taken care of, than they are at present.

This method of raising troops is very well calculated for all countries, like France, which are well peopled, and able to furnish their own armies, without introducing foreigners. There are some states indeed which are forced to recruit amongst other nations; but might not these establish a national militia upon this plan? and are not those states who are under the necessity of having a great part of their army composed of foreigners, obliged, in a much greater degree, to keep sacred their agreement or capitulation with those strangers, than with their own subjects, as being a means to facilitate the raising of them?

## A R T I C L E II.

*Of clothing Troops.*

OUR dress is not only very expensive, but most inconvenient; the soldier is neither shod nor clad. The love of appearance prevails over the regard due to health, which is one of the grand points demanding our attention.

In the field, the hair is a filthy ornament for a soldier; and after once the rainy season is set in, his head can hardly be ever dry.—His cloaths don't cover his body; and in regard to his feet, they, with stockings and shoes, rot in a manner together, because he has not wherewithal to change them; and though he has, it can be of little signification, because, presently afterwards, he must be in the same condition again. Thus, as may be naturally supposed, the poor soldier is soon sent to the hospital.—White gaiters are only fit for a review, and spoil in washing; they are also very inconvenient, hurtful, of no real use, and very expensive.—The hat soon loses its agreeable shape; is not strong enough to resist the rains and hard usage of a campaign, but presently wears out; and as soon as a man, overpowered perhaps by fatigue, lies down, it falls off his head; and if he sleep with his head uncovered, and exposed to dews, or bad weather, he is the day following in a fever.

I would have a soldier wear his hair short,  
and

and be furnished with a small wig, either grey or black, made of Spanish lamb-skin, which he should put on in bad weather. This wig will resemble the natural head of hair so well, as to render it almost impossible to distinguish the difference ; will fit extremely well, when properly made ; cost but about twenty pence, and last during his whole life : it will be also very warm ; prevent colds and fluxes ; and give quite a good air.—Instead of the hat, I would recommend an helmet, made after the Roman model ; which will be no heavier ; be far from inconvenient ; protect the head against the stroke of a sabre ; and appear extremely ornamental.

In regard to his cloathing, he should have a waistcoat, somewhat larger than common, with a small one under it, in the nature of a short doublet \* ; and a Turkish cloak †, with a hood to it. These cloaks cover a man completely, and do not contain above two ells and a half of cloth ; consequently are both light and cheap : the head and neck will be effectually secured from rain and wind ; and the body, when laid down, kept dry ; because they are not made to fit tight, and when wet, are dried again the first moment of fair weather.

\* Almost all the German cavalry are clothed in this manner ; and certainly the skirts of a coat are of little or no use, as there are cloaks, which sufficiently answer the purpose of keeping out the cold and rain.

† These cloaks ought not to extend in length below the calf of the leg.

It is far otherwise with a coat ; for when wet, the foldier not only feels it to the skin, but is reduced to the disagreeable necessity of drying it upon his back. It is therefore no longer surprizing, to see so many diseases in an army. Those who have the strongest constitutions, perhaps escape them the longest, but they must at length submit to a calamity which is unavoidable. If to the distresses already enumerated, we add the duties even those in health are obliged to perform for their sick comrades ; for the dead, wounded, and deserted ; one ought not to wonder that the battalions are reduced at the end of a campaign to 100 men. Thus we perceive how far the smallest things may influence and affect those of the greatest consequence. But to return to the cloaks : As the quantity of cloth required is small, and they are light, they can be rolled up, and fastened along the knapsack upon the back ; in which position they will be very far from having a bad effect, at the same time that the men under arms, and in fair weather, will find themselves easy, and unincumbered by them ; they will also last for three or four years. Thus the dress may be reduced to a smaller expence, rendered more healthy, and its appearance, to the eye, rather improved than diminished.

In regard to the legs and feet, I could wish the soldiers were to have shoes made of thin leather, with low heels ; which will fit extremely well, and make them involuntarily assume



sume a good grace in marching ; because low heels oblige men to turn out their toes, to stretch their joints, and consequently draw in their shoulders. These shoes must be worn upon the naked foot, and greased with tallow, or fat. This precaution will doubtless appear strange to the *petit-maitres* : but we know from experience, that it was made use of by all the French veterans ; because it not only entirely preserved their feet from galling on a march, but the grease prevented the wet, in a great measure, from penetrating ; and the leather from growing hard, and hurting them.

The Germans, who make their infantry wear woollen stockings, have always great numbers crippled, from blisters, ulcers, and all sorts of inflammatory humours in their legs and feet, as wool is venomous to the skin ; besides, they soon break at the toes, and, remaining wet upon the feet, presently rot away. To these pumps I would add thin leathern gaiters, fitted also to the naked leg, and supported upon it by the buttons of the breeches ; which are, for that purpose, to come below the knee, and to be made of leather. Thus one avoids the use of garters ; which is by no means a circumstance of the least consequence ; for the soldiers at present wear no less than three pair, one over another ; the first, to tie up their stockings ; the second, to tighten their breeches knees ; and the third, to keep up their gaiters ; all which must certainly debilitate their nerves, and render them less patient

of fatigue.—To these must be added sandals, or galoches \*, with wooden soles of about the thickness of an inch; which would prevent the men's feet from getting wet in marching through dirty roads, or the dew, and be of particular service to them, when on duty: but, during the dry season of the year, and for exercises and reviews, they are to be laid aside.

On the 1st of November every year, they should be also furnished with a pair of woollen stockings, large enough to wear over their shoes and gaiters; which ought, moreover, to be soled with a slender leather; and the sole to be brought a little over the sides and toes of the feet, that they may be occasionally worn within the galoches.

### A R T I C L E III.

#### *Of subsisting Troops.*

THE practice of troops messing together contributes much to good order, œconomy, and health; debauchery and gaming are thereby prevented, and the soldier is, at the same time, very well maintained. This institution, however, is not without its inconveniencies; because a man harasses himself after a march in search of wood, water, &c.; is tempted to maraude; is perpetually dirty, and ill dressed; spoils his cloaths by the carriage

\* A great many of the French soldiers make these galoches themselves in the winter-time, out of their old shoes.

from one camp to another of all the necessary utensils for his mess ; and likewise impairs his health by the extraordinary fatigues which unavoidably attend it.—Yet these inconveniences are not without a remedy : for the troops being, according to my disposition, divided into centuries, a sutler, provided with four carts drawn each by two oxen, should be appointed to every one, and furnished with a pot large enough to hold a sufficient quantity of soup for the whole century, of which every man should receive his proportion in a wooden porringer, together with some boiled meat at noon, and roasted in the evening ; and officers should attend, to see that they be not imposed upon, or have cause to complain.—The profit allowed to be made by these sutlers, should arise from the sale of liquors, cheese, tobacco, and the skins of the cattle which they kill ; and which they are also to maintain with the herbage and provisions that will be always found in the neighbourhood of the army.

To carry this into execution, may at first appear a matter of some difficulty ; but very little application will be necessary to render it both practicable, and of general use. Soldiers, when they were to go on parties, might carry as much roasted meat as would serve them for one or two days, without any manner of incumbrance. The quantity of wood, water, and kettles, which is now required to make soup for an hundred men, is more than would be sufficient for a thousand in the way I propose ;

and the soup, at the same time, be composed of much better ingredients : besides, the soldiers would thus avoid all unwholesome things which produce disorders, such as hog's flesh, unripe fruit, &c. ; and the officers would only have occasion to attend their meals, at which one at least should be always present, to take care that they had justice done them. On forced marches, or at such times when the baggage could not be brought up, the cattle upon the spot should be distributed amongst the troops, and wooden spits made to roast their flesh ; which is an expedient accompanied with no imbarassment whatsoever, and lasts only for a few days. But let us compare our method with this, and we shall soon find which is the most preferable. It is in use amongst the Turks, who are by that means at all times well nourished, insomuch that their bodies, after an engagement, are very distinguishable from those of the Germans, which are pale and meagre. There is also another advantage resulting from it in certain cases ; that of managing the soldier's purse, by furnishing him with his pay, and at the same time selling him his provisions ; for instance, when contributions are to be raised in countries abounding in cattle, like Poland and Germany, that the inhabitants may be able to furnish what is required, one half must be taken in provisions, the other in money, and the former sold to the troops. Thus the soldier's pay makes a perpetual circulation, and there will likewise remain

main an overplus of both money and provisions.—It is moreover of great service in the consumption of such magazines as you have been obliged to make ; for by sending your troops to subsist upon them, the loss to the state will be much diminished, and no umbrage, at the same time, given to the men.

Bread should never be given to soldiers in the field, but they should be accustomed to biscuit ; because it is a composition that will keep without spoiling five years or more in the magazines. It is very wholesome, and a soldier can carry a sufficient quantity of it for seven or eight days without any inconvenience. We need only apply to such officers as have served amongst the Venetians, to be informed of the general use, as well as convenience of it. The Muscovite kind, called *soukari*, is the best, because it does not crumble : it is made in a square form, of the size of a small filbert ; and, as it takes up but little room, will not require such numbers of waggons to convey it from place to place as are necessary for bread.—The purveyors indeed very industriously propagate the opinion, that bread is better for a soldier : but that is altogether false, and proceeds only from a selfish regard to their own interest ; for they do not more than half-bake it, and blend all sorts of unwholesome ingredients ; which, with the quantity of water contained in it, renders the weight and size double. Add to this, their train of bakers, servants, waggons, and horses, upon  
all

all which they make a large profit : they are also a great incumbrance to an army ; must be always furnished with quarters, mills, and detachments to guard them. In short, it is inconceivable how much a general is perplexed with the frauds they commit, the imbarraffments they create, the diseases they occasion by the badness of their bread, and the extraordinary trouble they give to the troops. The erecting of ovens is a circumstance which, in general, discovers so much of your intentions to the enemy, that it is needless to say any more about it. If I undertook to prove every thing which I advance by facts, I should not be able to dismiss this subject so soon ; but, upon the whole, I am convinced, that a great many misfortunes have proceeded only from this evil, which have been falsely ascribed to other causes.

It would be proper sometimes to withhold even biscuit from the men, and give them corn in its stead, which, after having first bruised, and made into paste, they must learn to bake upon iron plates. Marshal Turenne, in his memoirs, makes some mention of this custom ; and I have heard it observed by other great commanders, that they sometimes refused their troops bread, even when they had abundance of it, in order to inure and reconcile them to the want of it. I have made campaigns of eighteen months length with troops that were, during the whole time, without it, and yet never discovered the least dissatisfaction. I  
have

have also made several others with such as were accustomed to it, and who were so far from being able to submit to the want of it, that the intermission of it for only a day was attended with the greatest inconveniencies; a circumstance that rendered every enterprize in which expedition was required, impracticable.

In regard to flesh-meat, there is hardly a possibility of being reduced to a want of it; for cattle can keep up with an army very well, and cost nothing in conveyance; and if we grant that an ox weighs 500 pounds, and that every man is to be allowed but half a pound, one ox *per* day will maintain a thousand men, and fifty will consequently be sufficient for 50,000: suppose then that a campaign lasts 200 days, the number of oxen required will amount to no more than 10,000, which will follow the army, and find pasture sufficient to support them in all places. They should be assembled in different herds, or repositories, and successively advanced as occasion may require.

I cannot omit taking notice here of a custom established amongst the Romans, by means of which they prevented the diseases and mortality that armies are subject to from the change of climates; and to which also a part of that amazing success which attended them ought to be attributed. The German armies lost above a third upon their arrival in Italy and Hungary. In the year 1718, we entered the  
camp

camp of Belgrade \* with 55,000 men : it stands upon an eminence ; the air is wholesome ; the water good, and we had plenty of all necessaries : nevertheless, on the day of battle, which was the 18th of August, we could muster only 22,000 under arms ; the rest being either dead, or incapable of acting. — I could produce many instances of this kind, which have happened amongst other nations, and can be only imputed to the change of climate. The use of vinegar was the grand secret by which the Romans preserved their armies ; for as soon as that was wanting amongst them, they became as much subject to diseases as we are at present. This is a fact that few perhaps have attended to, but which is notwithstanding of very great importance to all commanders, who have a regard for their troops, and any ambition to conquer their enemies. — In regard to the manner of using it, the Romans distributed it by order amongst the men, every one receiving a sufficient quantity to serve him for several days, and pouring a few drops of it into the water which he drank. To trace the cause of so salutary an effect, is what I leave to the adepts in physic, contenting myself with having related a simple fact, the reality of which is unquestionable.

\* The Marshal served this campaign as a volunteer.



## A R T I C L E IV.

*Of paying Troops.*

WITHOUT entering into a detail of different pay, I shall only say in general, that it ought to be such as will afford a competency. A handful of men well subsisted and disciplined, is superior to a multitude of such as are neglected in those important particulars ; for it is the goodness, and not the number of troops, on which victory depends.

OEconomy is commendable, when confined within certain limits ; but when it exceeds those, it degenerates into sordid parsimony. Unless your appointments for the officers are such as will support them genteelly, you must dispose of them, either to men of fortune, who serve only for their pleasure, or to indigent wretches, who are destitute of spirit. The former of these I make but small account of, because they are, for the most part, impatient of fatigue, and repugnant to all subordination ; they are addicted to perpetual irregularities, and no more than mere libertines : the latter are so depressed, that it would be unreasonable to suppose them capable of any thing great or noble : for as preferment is not rendered an object of sufficient importance to influence their passions, their ambition is naturally soon gratified ; and they are full as happy to remain in their old stations, as to rise to higher at any expence.

Hope encourages men to endure and attempt every thing. In depriving them of that, or removing it to too great a distance from them, you divest them of their very soul: for which reason, all degrees of advancement ought to be accompanied with a proportionable increase of honours and advantages; and every officer should not only regard the command of a regiment as a post of the highest dignity, but, moreover, be assured, that he himself, by good behaviour and perseverance in his duty, will at length attain the same.—When these things have been happily effected, the troops may be kept under the severest discipline. But, to speak the truth, the gentry, who are what we call soldiers of fortune, make the only good officers; and their appointments ought surely to produce an income sufficient to maintain them in a handsome manner; because a man who devotes himself to the service, should look upon it as an entrance into some order or other: he should neither have, nor even acknowledge any other home, than that of his regiment; and, at the same time, whatsoever station he may be in, should esteem himself honoured by it.

According to the fashion of the present times, a man of quality thinks himself very ill used, if the court does not present him with a regiment at the age of eighteen or twenty. This extravagant partiality destroys all manner of emulation amongst the officers of inferior birth; who thereby become, in a great measure, excluded

cluded from any chance of succeeding to the like preferments, and consequently to the only posts of importance ; the glory attending which would atone for the toils and sufferings of a tedious life, to which they chearfully submit, in hopes of acquiring reputation, and a future recompense.

Nevertheless, I would not be understood to argue, that princes, and other persons of illustrious birth, should be denied all marks of preference and distinction ; but only that some regard should be had to their abilities ; and that the privileges of birth should be supported by those of distinguished merit. If therefore they are properly qualified, they might be allowed to purchase regiments of such of the gentry as had been rendered incapable of service by age or infirmities ; which permission would at the same time prove a recompense for both : but they are by no means to be intitled to the liberty of selling again to another ; because that of purchasing at unseasonable years is an indulgence sufficient : their regiments therefore, as often as they became vacant, ought to be afterwards disposed of in recompensing long service and conspicuous merit.

## A R T I C L E V.

### *Of exercising Troops.*

THE manual exercise is, without doubt, a branch of military discipline necessary to render a soldier steady and adroit under arms ;

but it is by no means of sufficient importance in itself to engage all our attention : so far from it, that it even deserves the least, exclusive of that part, which it is dangerous to make use of in the face of an enemy ; such as, carrying the firelock over the left arm, and firing by platoons, which, as will hereafter be explained, has occasioned many a shameful defeat. —After this exception, the principal part of all discipline depends upon the legs, and not the arms. The personal abilities which are required in the performance of all manœuvres, and likewise in engagements, are totally confined to them ; and whoever is of a different opinion, is a dupe to ignorance, and a novice in the profession of arms. —The question, Whether war ought to be styled a trade, or a science ? is very properly thus decided by the Chevalier Folard : *It is a trade for the ignorant, and a science for men of genius.*

After having thus treated of the manner of raising, clothing, and subsisting troops, it becomes necessary that I should proceed to that of forming them for action.

## A R T I C L E VI.

### *Of forming troops for action.*

I Propose to treat of this subject, which is a very copious one, in a manner so new, that I shall probably expose myself to ridicule ; but in order to render myself somewhat less obnoxious to it, I shall examine the present method  
of

of practice, concerning the forming of troops for action ; which is so far from being confined within a small compass, that it is capable of furnishing matter enough for a large volume.

I shall begin with the *march* ; which lays me under the necessity of first advancing what will appear very extravagant to the ignorant : it is, that notwithstanding almost every military man frequently makes use of the word *tactic*, and takes it for granted, that it means the art of drawing up an army in order of battle ; yet not one can properly say, what the ancients understood by it. It is every where a custom amongst troops to beat a *march*, without knowing the original or true use of it ; and it is universally believed, that the sound is intended for nothing more than a warlike ornament.

Yet sure we ought to entertain a better opinion of the Greeks and Romans, who either are, or ought to be our masters ; for it is absurd to imagine, that martial sounds were first invented by them, for no other purpose than to confound their senses.

But to return to the *march* : According to the present practice, it is accompanied with a great deal of noise, confusion, and fatigue, which serve no good end. The sole remedy for this appears to be a secret, left for me to disclose. As every man is suffered to consult his own ease and inclination, some march slow, and others fast : but what is to be expected  
from

from troops that cannot be brought to keep one certain, regular pace, either quick or slow, as the commanding officer shall think proper, or the exigency of affairs require; and that an officer is obliged to be posted at every turning, to hasten the rear, which is perpetually loitering behind? A battalion moving off its ground, not improperly conveys the idea of a machine, constructed upon no principle, which is ready to fall in pieces every moment, and which cannot be kept in motion without infinite difficulty.

If, on a march, the front is ordered to quicken its pace, the rear must unavoidably lose ground, before it can perceive it; to regain which, it sets up a run; the front of the succeeding corps will naturally do the same, which presently throws the whole into disorder. Thus it becomes impossible to march a body of troops with expedition, without forsaking all manner of order and regularity.

The way to obviate these inconveniencies, and many others of much greater consequence, which proceed from the same cause, is, however, very simple, because it is dictated by nature: it is nothing more than to march in \* *cadence*, in which alone consists the whole mystery, and which answers to the military pace of the Romans. It was to preserve this, that martial sounds were first invented, and drums introduced; and in this sense only is to be

\* This cadence, or equal measure, preserved in marching, is the same which is now in use amongst the Prussian troops.

understood the word *tactic*, although hitherto misapplied and unattended to. By means of this, you will be always able to regulate your pace at pleasure; your rear can never lag behind, and the whole will step with the same foot; your wheelings will be performed with celerity and grace; your mens legs will never mix together; you will not be obliged to halt, perhaps, in the middle of every wheel to recover the step; nor will the men be fatigued in any degree equal to what they are at present. Nothing is more common, than to see a number of persons dance together during a whole night, even with pleasure; but deprive them of music, and the most indefatigable amongst them will not be able to bear it for two hours only. This sufficiently proves, that sounds have a secret power over us, disposing our organs to bodily exercises, and, at the same time, deluding, as it were, the toil of them.—If any one, thinking to ridicule what I have advanced, asks me what particular air I would recommend to make men march; I will readily answer, without being moved by his railery, that all airs, in common or triple time, will produce such an effect; but only in a greater or less degree, according to the taste in which they are severally set; that nothing more is required, than to try them upon the drum, accompanied by the fife, and to chuse such as are best adapted to the nature and compass of those instruments.—Perhaps it may be objected, that there are many men whose

ears

ears are not to be affected by sounds. But this is a falsity ; for the movement is so natural, that it can hardly be even avoided. I have frequently taken notice, that, in beating to arms, the soldiers have fallen into their ranks in cadence, without being sensible of it, as it were ; nature and instinct carrying them involuntarily ; and without it, it is impossible to perform any evolution in close order, which I shall prove in its proper place.

If what I have been saying is only considered in a superficial manner, the cadence may not appear to be of such great importance ; but to be able to increase or diminish the rapidity of a march, during an engagement, is an advantage which may be of infinite consequence. The military pace of the Romans was no other than this, with which they marched twenty-four miles, equal to eight of our leagues, in five hours. Let us try the experiment upon a body of our infantry, and see whether they will be able to perform as much in the same space of time. It must be allowed indeed, that marching composed the principal part of their discipline ; nevertheless, one may from hence form a judgment of the pains they took in exercising their troops, as well as of the importance of the cadence.—It will be no difficulty to prove, that it is impossible to keep the ranks close, or to make a vigorous charge upon an enemy, without it. What a prodigy is this ! and yet I don't believe a single person  
has



has paid any regard or attention to it for these three or four ages past.

It now becomes necessary to examine a little our present method of forming troops for action. Those who understand it the best, divide a battalion into sixteen parts, which are distinguished by different appellations, according to the peculiar customs of places. A company of grenadiers is posted upon one flank, and a picquet upon the other : it is drawn up four deep \* ; and that its front may be rendered as extensive as possible, it marches to the attack in a line. The battalions which form the whole line of battle, are close to each other, the infantry being all together in one body, and the cavalry in another ; a method contradictory to common prudence, and of which we shall speak more at large in another place. In advancing towards the enemy, they are compelled, by the nature of their disposition, to move very slow : the majors are calling out, *Close !* on which they press inwards, and crowding too much upon their centre, it insensibly breaks ; and becomes eight deep, while the flanks remain only four : an instance which every person who has been in an engagement will acknowledge the truth of. The general seeing this disorder, and being afraid to have his flanks exposed, by the intervals which have consequently been made between

\* It is the custom of the English army, to draw up their battalions three deep ; but we are to suppose, that the Marshal alludes in this place to the French disposition.

the battalions, is obliged to halt ; which, in the face of an enemy, is very dangerous ; but as they also, from similar measures, are probably in as much confusion, the mischief is not so great as it would be otherwise. Nevertheless, a person ought, at all events, to persist in advancing, and never make a halt, to remedy such disorders ; because, if the enemy takes advantage of that opportunity to fall upon him, he must inevitably be undone.

When the two armies arrive within a certain distance from each other, they both begin to fire, and continue their approaches, till they come within about fifty or sixty paces ; where, as is usually the case, either the one or other takes to flight ; and this is what is called a charge. It is inconsistent, indeed, with the nature of their present bad order, that they should be able to make a better ; because I look upon it as an impossibility, without the use of the cadence. But let two battalions, which are to engage each other, march up with straight ranks, and without doubling or breaking, and say which of them will gain the victory ; the one that gives its fire in advancing, or the other that reserves it. Men of any experience will, with great reason, give it in favour of the latter : for, to add to the consternation into which the former must be thrown, in seeing their enemy advancing upon them through the smoke, with his fire reserved, they will be either obliged to halt, or, at least, to march very slow, till they have  
loaded

loaded again; during which time, they are exposed to a dreadful havock, if he enlarges his pace, and falls upon them before they are ready again.

If the last war had continued some time longer, the close fight would certainly have become the common method of engaging; for the insignificancy of small arms began to be discovered, which make more noise than they do execution; and which must always occasion the defeat of those who depend too much upon them. If, therefore, the firings had been laid aside, it is highly probable, the present method likewise of forming three or four deep, would have soon shared the same fate: for what service could reasonably be expected from a body of men, rendered slow and unwieldy by their extent of front, against an opposite one, who were able to march with more rapidity, and to perform every movement with more ease? But, in order to render this more intelligible, the following explanation will not be unnecessary.

Let us suppose two battalions, each composed of 600 men, drawn up according to the plan, N<sup>o</sup> 4. A represents one formed after the present method, B one after mine, and is moreover eight deep, whose front is nevertheless equal to the one four deep; accompanied at the same time with the advantage of being able still to enlarge it; which it is impossible for the other to do without breaking: I shall always outflank the other, by adding a pace or

*plate 5 figure 2* D 2

two

two occasionally to my intervals ; shall remain eight deep against four ; have no disorders or confusion to apprehend ; shall be able to march as quick again ; and having no obstacle of sufficient force to oppose me, shall make way through their ranks in an instant.—If they open, in order to attack the flanks of my divisions, the intervals between them are so small, and the pikes transversed in such a manner, that they will be inevitably broken, and thrown into confusion ; and by giving their fire, they will expose themselves to immediate destruction, having no further means of retarding my fury.

This method of forming a battalion corresponds exactly with that of the Romans, and is evidently the best. Let us therefore acknowledge them for our masters, and adopt their measures. Though they had no gunpowder, yet they invented machines, which, if they made less noise than ours, did as much execution. The effects of gunpowder in engagements are become less dreadful, and fewer lives are lost by it, than is generally imagined. I have seen whole volleys fired, without even killing four men ; and shall appeal to the experience of all mankind, if any single discharge was ever so violent, as to disable an enemy from advancing afterwards, to take ample revenge, by pouring in his fire, and at the same instant rushing in with fixed bayonets. It is by this method only, that numbers are to be destroyed, and victories obtained.

At

At the battle of Castiglione, M. de Revent-lau, who commanded the Imperial army, had drawn up his infantry on a plain, with orders to reserve their fire till the French approached within twenty paces ; expecting, by a general discharge made at that distance, to defeat them. The French, after having, with some difficulty, reached the top of a hill, which separated them from the Imperialists, drew up opposite to them, with orders not to fire at all : but as M. de Vendome judged it imprudent to make the attack, till he had first possessed himself of a farm which was situated upon his right, the two armies stood looking at each other for some time. At length, the orders to engage were given. The Imperialists, in obedience to their instructions, suffered the French to approach within about twenty or twenty-five paces ; at which distance they presented their arms, and fired with all possible coolness and precaution : notwithstanding which, before the smoke was dispersed, they were broken to pieces ; great numbers of them were destroyed upon the spot, and the rest put to flight.

At the battle of Belgrade, I saw two battalions cut to pieces in an instant, of which the following is a relation. Being surrounded by a thick fog, which rendered it impossible for us to discern any thing, a strong blast of wind suddenly arose, and dispersed it ; when we immediately saw a battalion of Lorraine, and another of Neuperg upon a hill, called the *battery*,

tery, separated from the rest of our army. Prince Eugene at the same time discovering a party of horse in motion upon the side of the mountain, asked me if I could distinguish what they were : I answered, they were thirty or forty Turks ; then replies he, those two battalions are undone : at which time I could perceive no appearance of their being attacked, not being able to see what was on the other side of the mountain ; but galloping up at full speed, I no sooner arrived in the rear of Neu-perg's colours, than I saw the two battalions present, and give a general fire upon a large body of Turks at the distance of about thirty paces ; instantaneously after which, the Turks rushed forwards through the smoke, without allowing them a moment's time to fly, and with their sabres cut the whole to pieces upon the spot. The only persons who escaped, were M. de Neu-perg, who happened luckily to be on horseback ; an ensign, with his colours, who clung to my horse's mane, and incumbered me not a little, besides two or three private men. At this instant came up Prince Eugene, almost quite alone, being attended only by his body-guard ; but the Turks, of their own accord, retired. Here the Prince received a shot through his sleeve. Upon the arrival afterwards of some cavalry and infantry, M. Neu-perg desired a detachment to secure the cloathing ; upon which sentries were immediately posted at the four angles of the ground, occupied by the dead bodies of the two battalions ;  
and

and their cloaths, hats, shoes, &c. collected in heaps together ; during which time, I had curiosity enough to count the number of Turks, which might be destroyed by the general discharge of the two battalions, and found it amounted only to thirty-two ; a circumstance, which has by no means increased my regard for the firings \*.

It was an established maxim with M. de Greder, a man of reputation, and who has, for a long time, commanded my regiment of foot in France, to make his men carry their firelocks shouldered in an engagement ; and in order to be still more master of their fire, he did not even suffer them to make ready their matches † : thus he marched against the enemy, and the moment they gave their fire, he threw himself, sword-in-hand, at the head of the colours, and crying out, *Follow me !* rushed at once upon them. By this method he defeated the Frise guards at the battle of Flerus, and was also successful on all other occasions.

What I have been advancing, appears to me

\* The quickness with which the Prussians load, is an advantage in one respect, as it engages a soldier's attention, and allows him no time for reflection in marching up against his enemy : nevertheless it is an error to imagine, that the five victories which they obtained in the last war, ought to be ascribed altogether to their firing, because it was remarked, that, in most of those actions, they lost more men from the fire of the enemy, than the enemy did from theirs.

† This expression alludes to the match-locks which were formerly in use, and signifies the fixing of the match in its proper place to give fire to the musket.

supported

supported by reason, as well as experience, and proves that our large battalions are vastly defective in their composition ; as the only service which they are capable of doing in action, is by their firing : their construction is therefore adapted to that alone ; and when that is rendered ineffectual, they are no longer of any consequence ; conscious of which, their own safety becomes naturally the next object of their attention. Thus it is, that every thing centers, from its very nature, in its point of equilibrium.—The original of this method of forming our battalions, was probably taken from reviews ; for, drawn up in such extensive order, they make a more pleasing appearance ; to which being familiarized by custom, it insensibly became adopted in action.

Yet, notwithstanding the weakness and absurdity of such a disposition, there are many who pretend to vindicate it by reason ; alledging, that in thus extending their front, they will be able to enlarge their fire : and, in compliance with this opinion, I have known some draw up their battalions even three deep ; but they have been made sensible of their error, by severe experience ; otherwise, I really imagine, they would soon have formed them two deep, and not improbably, in ranks entire : for it has been hitherto an invariable maxim in all engagements, to endeavour to outflank the enemy, by exceeding him in front.—But before I enlarge too much on this subject, it is necessary that I should describe



scribe my method of forming regiments and legions ; after which, I shall treat of the cavalry ; and endeavour to establish a certain order and disposition, which, although it may be subject to some change from the variety of situations, ought never to be totally departed from.

## C H A P. II.

*Of the Legion.*

THE Romans conquered all nations by the effects of their discipline ; they studied the art of war with unwearied attention, and judiciously relinquished their own customs, whenever experience threw better in their way. In this respect, they differed from their enemies, the Gauls, whom they perpetually defeated during a series of ages, without making them sensible of the badness of their practice, or provoking them to retrieve their losses, by any alteration in it.

The legion was a body so formidable, as to be capable of undertaking the most arduous enterprises. Its composition, says Vegetius, was undoubtedly the effect of divine inspiration alone ; a reflection corresponding with the opinion which I have, for a long time, entertained concerning its importance, and which has rendered me more sensible of the defects of our own practice.

According then to my system, the infantry is to be formed into legions, every one consisting of four regiments, and every regiment of four centuries; each century having a half-century of light-armed foot, and a half-century of horse.

When centuries of infantry are drawn up in separate bodies, I shall give them the name of *battalions*; and the cavalry, that of *squadrons*; in order to render things familiar to our ideas, by conforming as much as possible to our own customs.

The centuries, both of foot and horse, are to be composed of ten companies \*; every company consisting of fifteen men, as will be explained more at large in the following details.—But as it is necessary in all governments to have regard to œconomy in the support of their armies, it therefore becomes expedient to form them upon † three different establishments, understood among us by the following appellations; the establishment in peace; the preparatory establishment for war; and the complete establishment in war.

In times of profound peace, when the first establishment takes place, the companies are only to consist of one serjeant, one corporal, and five veteran soldiers; when preparations

\* Although a company of horse is an unusual term in the English service; yet it is hoped the military reader will be kind enough to excuse this introduction of it, as it is only admitted in this place, to prevent obscurity and confusion in others.

† See plate 1. figure 3 & 4

are making for a war that is expected, although not declared, an addition of five men must be made ; and of ten, when they are to be completed to the full establishment, which makes an augmentation of 1600 *per* legion.

The five veterans *per* company will constitute a fund for the occasional supply of officers, and non-commissioned officers, by which means the inconvenience of making them of such as have never been in service, will be avoided.

New-raised regiments I am altogether averse to ; for unless they are grafted upon old ones, and commanded by good officers, eight or ten campaigns generally destroy them.

The cavalry are to be subject to no manner of change or reduction : for veterans, both in regard to men and horses, are the best ; and recruits of either, absolutely useless. Notwithstanding therefore they are an expence to a nation, their consequence renders it indispensable.

In regard to the infantry, provided the principal officers are men of sense and experience, the management of the subordinate part of it is discretionary.

As I am going to treat of war, I shall accordingly suppose my troops completed to the third establishment ; so that a century of foot will consist of the following numbers.

*The detail of a century.*

Centurion	—	—	1
Lieutenant	—	—	1
Second lieutenants	—	—	4
Ensign	—	—	1
Serjeant-major	—	—	1
Fourier	—	—	1
Captain at arms	—	—	1
Fifer	—	—	1
Drummers	—	—	3
Ten companies, composed each of 17 men, including the serjeant and corporal	}		170
			<hr/> Total 184

The two half-centuries of horse and light-armed foot, are not to exceed ten *per* company, including the serjeants and corporals, because they are to recruit themselves out of the regiments to which they respectively belong. — Any diminution of the heavy-armed forces, which compose the main body of the infantry, even though it should be so great, by losses in time of war, as to reduce them to the *establishment in peace*, will be of no bad consequence, because the different divisions of the legion will still remain equal and entire: A circumstance of infinite use and advantage in service, as you will never be obliged to vary your manœuvre; for it is inconceivable how prejudicial are all alterations of that kind, insomuch that,

that, after a long peace, I have seen troops belonging to the same government, when assembled together, differ to such a degree in their manner of performing, that one would have naturally taken them for a collection made from several distinct nations.

It is necessary therefore to establish one certain principle of action, and never to depart from it; a principle which ought to be rendered familiar to every military person, as being the foundation of his profession: but it is impossible to retain it, unless you always preserve the same number of officers, and non-commissioned officers; because, without it, your manœuvres will naturally be subject to perpetual variation.

A regiment is to consist of four centuries, amounting to	—	736
The half-centuries of light-armed foot, officers and non-commissioned officers included	— —	70
The half-centuries of horse		70
		<hr/>
		876

*Staff-officers.*

I Colonel	—	—	}	6
I Lieutenant-colonel		—		
I Major	—	—		
I Adjutant	—	—		
I Drum-major		—		
I Surgeon	—	—		

Total regiment 882  
*The*

*The state of a legion.*

Four regiments	—	—	3528
Legionary general	—	—	1
Legionary major	—	—	1
Engineers	—	—	2
Quartermaster	—	—	1
Treasurer	—	—	1
Chaplain	—	—	1
Surgeon-major	—	—	1
Kettle-drummer	—	—	1
Standard-bearer	—	—	1
Waggon-master	—	—	1
Provost	—	—	1
Marshal-man	—	—	1
Executioner	—	—	1
Carpenters	—	—	10
Workmen of various kinds	—	—	10
Servants for ten carriages	—	—	20
			<hr/>
Total legion			3582

*N. B.* 2 twelve-pounders.  
2 pontons.

Every century is to be furnished with a piece of ordnance of my own invention, called an *amufette* \*, which carries above 4000 paces with extreme velocity ; the field-pieces used by the Germans and Swedes will scarcely carry a fourth part of that distance : this is also much more true ; is drawn and worked with ease

\* See plate 6. *Figure* 5

by two or three men ; carries a half-pound ball, and is made with a convenience to hold a thousand ; all which must render it of great service, on numberless occasions, in war.

The artillery and waggons are to be drawn by oxen, and the latter loaded with all kinds of instruments and utensils necessary for building forts ; as cordage, cranes, pulleys, windlasses, saws, hatchets, shovels, mattocks, &c. which must be all marked with the number of their respective legion, to prevent their being lost, or mixed together.

The corps being thus disposed, the private soldiers should have a piece of brass fixed on each shoulder, with the number of the legion and regiment upon it, to which they belong, that they may, at all times, be easily distinguished.—I would also have their right hands marked in the same manner, with the kind of composition made use of by Indians, so as never to be effaced ; which would effectually put a stop to desertion, and tend to innumerable good consequences. This custom, however strange, may nevertheless be easily introduced, provided the sovereign will only assemble his colonels, and represent to them, that it will be of great importance in supporting good order, as well as preventing desertion ; that it cannot be considered in any other light, than as a mark of honour, which manifests their engagement in the service of their country ; and that they will do him a pleasure, in first complying with it, and setting the example

ample to the rest of his army.—Any address of this nature must infallibly have the desired effect ; in consequence of which, all the subordinate officers, ambitious to oblige their prince, and sensible of the utility of such an institution, will gladly imitate their colonels ; after which, the soldiers will be so far from objecting to it, that it will become a matter of choice to them. It was a practice amongst the Romans, but with this difference, that they marked with a hot iron.

The half-centuries of horse are to be composed of men taken out of the regiments to which they respectively belong, leaving the choice of them to their centurion ; with this exception, that he must give preference in such election to the old soldiers. Cavalry thus collected and formed, will never abandon their infantry ; but, on the contrary, will inspire them with uncommon resolution, and be of admirable service to them, either in pursuing the enemy, or covering their retreat ; of which I shall speak more at large in another place.

The light-armed foot are, in like manner, to be supplied by their respective regiments, the centurions electing the youngest, and most active. Their arms must consist of nothing more than a very light fowling-piece, and a bayonet with a handle to it, which will, at the same time, answer the purpose of a sword. This fowling-piece is to be made so as to open and receive the charge at the breech, in order to avoid the inconvenience and loss of time in  
ramming



ramming it down ; and all the accoutrements must be as light as possible. Their officers are also to be chosen out of the regiment, after the same manner as the private men, without paying any regard to seniority.—Thus formed, they must be exercised with a continuance ; must practise jumping and running, but, above all, firing at a mark at three hundred paces distance : and rewards are to be appointed for those who excel in all these different exercises, in order to excite an emulation amongst them.

A body of infantry composed according to this plan, and thoroughly inured to labour, can march every where with the cavalry, and, I am confident, will be capable of doing very considerable service.

I am far from approving of grenadiers : for as they usually compose the flower of our army, and are employed on every important occasion, a brisk war exhausts them to such a degree, that they are no longer able to furnish non-commissioned officers, on whom the excellence of the infantry totally depends. I would therefore substitute the veterans in their room ; who ought, moreover, to have a larger pay than the other soldiers. The light-armed forces are to be employed on all services requiring expedition and activity, and the veterans only on such as were serious and of moment ; which will tend to the reciprocal interest of both establishments. The command of the former is to be always given to a lieutenant,

tenant, the particular appointment of whom must depend upon the colonel; but that of the latter, being regarded as the post of honour, is to be determined altogether by seniority. According to the present system, it is impossible to prevent the officers from succeeding to grenadier-companies by seniority, without affronting them to a violent degree; even those, which is frequently the case, who are in themselves insufficient, and whose persons are naturally too infirm to support the fatigues incident to those stations.—I have also seen the lives of many brave men thrown away on trifles, and that particularly at sieges. It is so common to employ the grenadiers on every occasion which presents itself, that they are sometimes detached on the most frivolous services, and but too often sacrificed without any manner of necessity.

The heavy-armed forces are to have good firelocks, five feet in length, whose bores must be wide enough to hold an ounce-ball, and made to receive the charge at the breech, in the same manner as those of the light-armed forces: they will carry above twelve hundred paces: to these must be also added bayonets, two feet and a half in length.

It is needless to be under any apprehensions of overloading the infantry with arms, because their weight rather serves to poise and make them steady than otherwise. Those of the Roman soldiers weighed above sixty pounds; and it was death to throw away any part of  
them

them in action ; which, so far from being attended with any bad consequence, had a quite contrary effect, as it prevented their entertaining any thoughts of flying ; and, for that reason, was one of their capital maxims.

The men are likewise to be furnished with bucklers of leather, prepared in vinegar ; which will be attended with very considerable advantages : for they are not only of use to cover the arms, but whenever the troops are to engage standing, they may form a kind of parapet with them in an instant, by passing them from hand to hand along the front ; two of them, the one upon the other, being musket-proof. My opinion, in regard to this piece of armour, is supported by that of Montecuculli, who says, that it is absolutely necessary for the infantry.

These bayonets being made with handles to fix within the barrel of the firelock, are much preferable to the others ; because they put it into a commanding officer's power, to preserve his fire as long as he thinks proper ; which is a circumstance of the utmost importance. It is inconsistent for one body of troops to make use of two different ways of engaging at once. They must of necessity, therefore, either proceed at once to close fight, or depend altogether upon their firings ; and whenever the former method is to be put in execution, the latter must be laid aside ; to which, on actual service, men can hardly be reconciled ; nothing, in general, being more difficult, than

to prevent their firing, when they approach near their enemy ; of which what follows is one instance.

Charles XII. King of Sweden, intending to introduce amongst his troops the method of engaging sword-in-hand, had frequently mentioned his design to his officers, and it was likewise made known to his whole army. Accordingly, at the battle of ——— against the Muscovites, he hastened to the head of his regiment of infantry, the moment it begun, and made a fine harangue ; immediately after which he dismounted, and, posting himself in the front of the colours, led them on to the charge ; but as soon as they came within about thirty paces of the enemy, the whole gave fire, notwithstanding his presence, as well as his positive orders to the contrary ; and although he routed the enemy, and gained a complete victory, yet he was so piqued, that he passed through the ranks, remounted his horse, and rode off without speaking a single word.

But to return to the legion :—— The battalions are at first to be drawn up four deep, the two front ranks being armed with firelocks only, and the two rear with half-pikes, and firelocks slung over their shoulders. The half-pike is a slender weapon, thirteen feet in length, exclusive of the iron head, which is to be three-square, eighteen inches long, and two broad ; the staff must be of deal, hollowed, and covered with varnished parchment ; which  
will

will be very light, and not being so limber as one that is solid, will be likewise much more useful in action.—My opinion, in regard to the importance of this instrument, is supported by the general concurrence of men of reflection and experience; and the only reasons to be assigned for the disuse of it, are such as have also occasioned the abolition of many other excellent customs of the ancients, by which I mean neglect and indolence. The half-pikes were found unserviceable in some affairs that happened in Italy, where the situation was rough and impracticable for them; from whence they came to be totally laid aside; and nothing since has been thought of, but to increase the quantity of fire-arms.

Although I have been exclaiming against firing in general, yet, in certain situations, it is both advantageous and necessary; such as, in inclosures and rough grounds, and also against cavalry: but the method of performing it ought to be simple and unconstrained.—The present practice is of little or no effect; for the men are so distracted by that attention which they are obliged to give to the word of command, that it is impossible for them to fire with any certainty. How is it to be expected, that, after they have presented their arms, they can, in such a position, retain an object in their eye, till they receive the word to fire? The most minute accident serves to discompose them; and having once lost the critical moment, their fire afterwards is, in a great measure, thrown away.

away. The strictest nicety and exactness is required in levelling; insomuch, that any movement of the firelock, when presented, altho' even imperceptible, is sufficient to throw the ball considerably out of its true direction; to add to which, their being kept in a constrained attitude, will naturally make them unsteady. These, and other inconveniencies, totally prevent that execution which might be expected from small arms. But as this is a subject which demands a particular article, I shall therefore treat of it at large hereafter, and return to the forming of my battalions.

In charging, the two rear-ranks are to level their pikes; in which position they will extend from six to seven feet before the front-rank: the front-ranks being sheltered in such a manner, will, I am confident, take a much surer aim, and fire with more coolness and resolution, than they would otherwise do; and the rear-ranks, as they are likewise covered by the front, will exercise their pikes with more intrepidity, and be capable of doing infinitely more service, than if they were armed only with firelocks: the second rank can fire very well, without obliging the front to kneel; by which means a very inconvenient and dangerous position is avoided: for all those who labour under any degree of fear, are naturally desirous to continue as long as possible in such an attitude; and after they have fired, do not rise up, in order to load again, with that briskness which is necessary. But there is another more  
material

material objection to this method, which is, that it subjects you to the necessity of halting at every fire.—According to the disposition which I propose, the whole are under cover, one rank protected by another with a reciprocal confidence. The front presents a forest of spears, whose appearance must be dreadful to your enemies, and encouraging to your own troops, who become inspired with fresh courage from a sensibility of their power.

The plans numbered 5, 6, 7, 8, 9, and 10, will explain my manner of forming the centuries. In forming regiments, the standards are to be posted in the centre of their respective centuries, because every century is to follow its own; and in forming the legion, the standards of all the regiments are to be governed by the grand or legionary standard; which method will enable them, on every occasion, to form with ease and celerity.

As standards were at first designed only for such purposes, and to assist troops in rallying, nothing astonishes me more, than that men should be prevailed upon to deviate from so essential an institution. It is become universally the custom, to post all the standards belonging to a battalion in the centre of it, as if nothing less than numbers collected together could serve to render them sufficiently conspicuous. This absurd practice appears to me another proof of our ignorance: for the standards being appointed by the ancients, each to direct the motions of a separate body of troops; and  
these

these bodies being reduced, by the events of war, to small numbers, the whole, in consequence of their weakness, were at length formed into one body, and all the standards posted in the centre : in the course of years, they were completed to their first establishment ; but the necessary removal of the standards to their former posts again, which ought to have taken place at the same time, was omitted : from thence we blindly have adopted the same custom, which is a circumstance that has hitherto escaped the observation of any other person ; and it is highly probable, that our battalions likewise owe their present unwieldy form to some such original. If this be allowed, the disciplinarians of the present age have certainly proceeded upon a principle founded upon extreme ignorance and error.

As there will be found above an hundred officers and non-commissioned officers *per* regiment, they are therefore to be always posted by files ; one to every maniple or division, and two to every century. This disposition will enable them to prevent the regiments from disordering each other, and the divisions from mixing, which is a matter of no small moment in an engagement : it will moreover produce another good effect, in giving them an absolute command over the men : for whenever they attempt to take their firelocks from off their shoulders, in order to fire at an improper time, or without order, they can instantly see and hinder it ; which they are by  
no



no means able to do, when posted in the front and rear, according to the present practice.

As I have formed three different establishments, the first and lowest of which is to take place in peace only ; the second, when a war is expected ; and the third, after it is declared ; at which time, the companies, as has before been explained, are to be completed to seventeen men, and consequently the centuries to 184, serjeants and corporals included ; when these centuries therefore are reduced a third, or more, they are to be distinguished by the name of *troops*, and by that of *battalions* only when complete.

The half-centuries of light-armed foot, and of horse, must be always kept complete, because they recruit out of their respective regiments, and consequently ought never to be below their proper establishment ; and this more especially, as it is not my intention to have them at all subject to detachments, but that they should always march in a body.

In the disposition for charging \*, the light-armed foot are to be dispersed along the front, at the distance of an hundred, or from one to two hundred paces, from the legion, and to begin firing when the enemy is about three hundred paces off ; which they are to continue, without any word of command, till the enemy approaches within about fifty paces ; at which distance, every commanding officer is to order a retreat, taking care to retire softly towards

\* See ~~plan II.~~ <sup>(1)</sup> plate 3 figure 11.  
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his respective regiment, and in such manner as to be able to fall into the intervals of the battalions by tens ; keeping up his fire likewise till he has joined them : by this time the legion must be advancing in charging order, having doubled its ranks, and formed eight deep, while the light-armed foot were skirmishing in front. The half-centuries of horse likewise, being divided and formed into two troops, are to be posted at the distance of thirty paces in the rear of their respective regiments.

The whole moving forwards in this order, with a regular and brisk pace, must certainly make a formidable appearance, and greatly intimidate the enemy ; for what can they do to oppose the shock ? If they would attack the flanks of the centuries, they must necessarily break their battalions before they can be able to do it ; which is a very dangerous, if not an impracticable attempt, considering that the intervals consist of no more than ten paces ; those moreover filled by the light-armed foot, and rendered still more impenetrable by the transversed pikes of the rear-ranks. How is it to be supposed, that, being only four deep, and having been likewise already harassed by the light-armed infantry, they can possibly maintain their ground against troops, which are not only quite fresh, but formed eight deep, with a front at the same time equal to theirs ; and which fall impetuously upon them, disordered in a manner already by that floating and unevenness of the ranks which is unavoidable

able in the movement of so extensive a body? From hence therefore it appears highly probable, that they must be defeated; and if they trust to flight, they will only expose themselves to more certain destruction: for the moment they turn their backs, the light-armed foot, together with the horse posted in the rear, are to pursue, and will make dreadful havoc amongst them. During the pursuit, the centuries are to stand fast, in order to receive their own troops again, if repulsed by the enemy, and to be able to renew the charge, in case it should be necessary.

The peculiar advantages of this disposition being thus considered, I cannot avoid giving it the preference to all others, and of being best adapted for a day of battle. And although it may be imagined by some, that the enemy's cavalry might disperse my light-armed troops, yet, in the execution, it will be found quite otherwise: for every regiment having but seventy of these irregulars, which will be scattered along its front, and in continual motion, the enemy will have no steady or fit object to fire at: finding themselves able therefore to do but little, if any execution, and exposed at the same time to a severe fire, they must soon be obliged to retire. But as they will naturally endeavour to remedy this inconvenience, the only effectual method of doing it, will be for them likewise to establish a body of irregulars, trained up to engage mine, and formed upon my principle. Thus its goodness is in one in-

stance demonstrated, by the enemy's being reduced to a necessity of adopting it. Yet it is reasonable to suppose, that they will first have suffered considerably, and have been repeatedly defeated, before they become sufficiently reconciled to this change in their manœuvre to put it in practice ; and even then their troops will be but awkward and new to that kind of engagement, opposed against mine perfectly dexterous, and familiarized to it by long habit. Their retreat will moreover be attended with great difficulty and danger ; for as the present disposition of their main body admits of no intervals, they will be obliged to move along the front of their respective regiments, in order to retire by the flanks.

It will not be improper, before I finish this chapter, to give the following concise calculation of the fire of my light-armed troops.

Let us suppose them to begin firing at the distance of 300 paces, which is what they must practise at their ordinary exercises, and to continue it, during the space of time necessary for the enemy to march that quantity of ground, which will be from six to seven minutes at least : my irregulars will be able to fire six times in a minute ; however, I shall only say five ; every one will therefore have fired thirty times, and consequently the complement belonging to every regiment, at least 2000, before the engagement can possibly commence on the side of the enemy. We are, moreover, to consider, that the troops employed on this service,

service, are such as have been incessantly exercised in firing at some very distant mark ; which are not drawn up in any close order ; and which fire at their own ease and discretion, without being obliged to wait for the word of command, or kept in that constrained attitude which is customary in the ranks, where the men crowd one another, and prevent their taking a steady aim. I may therefore insist upon it, that a single fire from one of these irregulars perfected in his business, will in general do as much execution, as ten from any other ; and if the enemy are drawn up in order of battle, their movement will be so slow, that they must sustain above four or five thousand such fires from every regiment, before they will be able to begin the engagement.

I would not have any one imagine, that three hundred paces is too great a distance for these fuses ; because their construction is such, that they will carry four hundred point blank ; and above a thousand, if elevated to twenty, or twenty-five degrees.

To these I add the fire of the machines which I call *amufettes*. These, as I have before observed, do not require above two or three soldiers both to draw and work them ; which soldiers are to be furnished by the centuries to which they respectively belong, assisted by the captains-at-arms, who are appointed only for that service.——Before an engagement, these *amufettes* are to be advanced in front, along with the light-armed troops :

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as they can be fired two hundred times in an hour with ease, and carry above three thousand paces, they will be of great use to gall an enemy, when forming after they have passed any wood, defile, or village ; when marching in column, or drawing up in order of battle, which last requires time. Every century is to have but one ; nevertheless, those of both lines may be joined upon occasion, and the whole collected upon any eminence, in which situation they must do prodigious execution. They will carry further, and much more true, than our cannon ; and the captains-at-arms must be taught by constant practice, to work them with dexterity and judgment. The sixteen belonging to a legion planted together in an engagement, will be sufficient to silence any battery of the enemy's in an instant.

With regard to my pikes, if in rough, or mountainous places, they be found to be useless, the soldiers have nothing more to do, than to lay them aside for the time, and to make use of their fuses, which they always carry slung over their shoulders for such purposes. To say that the carriage of them will be too great an incumbrance, is a frivolous objection ; for as they are now obliged to carry their tent-poles, nothing more is required, than to substitute these pikes in their room, by making the tents in such a manner, that, with a cord tied by the middle of them, they may answer the same end. Their appearance above the tents, so far from being displeasing to the eye, will

will have a very good effect, and be rather ornamental in a camp, than otherwise. Their entire weight, including the iron-work, does not exceed five pounds ; and being made hollow, they are not so weak and limber as those formerly in use, which, at the same time, weighed near seventeen pounds, and were extremely incommodious.

Even numbers, and the square-root, constitute the principle on which the form and disposition of the several distinct bodies of my infantry depend, and from which one must never depart ; as are, for instance, the four maniples or divisions *per* century \* ; the four centuries *per* regiment ; and the four regiments *per* legion.

A body of troops formed according to this plan, must undoubtedly be capable of great things, especially if the legionary general be a man of parts and experience. For instance, if the commander in chief of an army wants to take possession of some post, to obstruct the enemy in their projects, or, in short, to execute any of those various enterprises which are frequently found necessary in the course of a war, he has nothing more to do, than to detach some particular legion upon it ; which, as it is furnished with every material that can be required to fortify itself, can soon be secured from any outward insult ; and, in the space of four or five days, might put itself in such a de-

\* See plan 7.

fenfible ftate, as to be able to fuftain a regular fieve, and to ftop the progrefs of the enemy's whole army.—How practicable this is, fhall be demonftrated hereafter, when I come to the fubjeft of fortification.

This difpofition of the infantry appears to me the more prudent, as it is juft in all its parts; and the acquired reputation of any fingle legion, will both make an emulous impreffion upon the others, and at the fame time difcourage the enemy. Such a body will naturally regard their credit as the common caufe, and be perpetually fpired on to glorious deeds, by a refflefs ambition to equal at leaft, if not excel that of any other. The exploits of a corps which has any fixed title, are not fofoon forgotten, as thofe of one which bears the name of its colonel only; becaufe that is fubjeft to be changed, and the remembrance of their former actions will then be apt to ceafe, together with that of their name. It is moreover natural for all men to be lefs interefted about things which relate to others, than about thofe in which they themfelves are perfonally concerned. Thus, by the fame rule, it becomes much eafier to infpire a corps which is diftinguifhed by a title peculiar to itfelf, with a fpirit of emulation, than another which is called after its colonel, who very probably may be difliked.—Many perfons, not knowing why thofe regiments which bear the names of provinces in France, have always behaved fo particularly well, impute it altogether to their  
natural



natural courage ; which is far from being the real reason, as appears from what I have just been observing. Thus we see, that matters of the utmost importance depend sometimes on trifles, which escape our notice.

These legions, moreover, form a kind of universal seminary of soldiers, where different nations are freely adopted, and their natural prejudices effectually removed ; a circumstance of infinite use to a monarch, or a conqueror, who will thus always have a world to recruit in.—And those who imagine, that the Roman legions were totally composed of Roman citizens, are very much deceived ; for they were a collection of all nations : but it was their composition, their discipline, and their method of fighting, which gave them the superiority over their enemies, and obtained their victories ; neither were they vanquished in their turn, till these prudent measures became supplanted, and negligence and degeneracy were suffered to prevail in their stead.

## C H A P. III.

1. Of cavalry. 2. Of armour. 3. Of arms and accoutrements for man and horse. 4. Of the establishment of cavalry ; together with their manner of forming, engaging, and marching. 5. Of foraging, green and dry. 6. Of tents, and the method of incamping. 7. Of detachments, or parties of light-armed cavalry.

## A R T I C L E I.

*Of cavalry in general.*

**T**HE cavalry ought to be well appointed ; to be mounted on horses inured to fatigue ; to be incumbered with as little baggage as possible ; and above all, that leading mistake of making the horses fat should be avoided. The oftener likewise they see an enemy, the better ; as it renders them familiar with danger, and capable of attempting any thing : but that immoderate love which we are apt to have for the horses, leaves us ignorant of their real power and importance.

I had a regiment of German horse in Poland, with which I marched in eighteen months above fifteen hundred leagues ; and I can also affirm, that at the end of that time it

was

was fitter for service, than another whose horses were too full of flesh. Unless cavalry be able to endure fatigue in running and violent exercise, they are in reality good for nothing ; but then they must be broke by degrees, and familiarized to it in length of time by custom ; after which, galloping at full speed by squadrons, and a constant use of violent exercises, will both preserve them in better condition, and make them last much longer ; it will moreover form the men, and give them a martial and becoming air. To exercise the horses only once every three years, and then but in a gentle manner, from an apprehension that violent fatigue and sweating may be prejudicial to them, is far from being sufficient : for I insist upon it, that unless they are accustomed to hard treatment, they will be more subject to disorders, and at the same time become incapable of service.

There must be two kinds of cavalry, distinguished by the different names of *horse* and *dragoons* : of the former of which, although much the best, the number must be but small, because they are attended with great expence : but their use and application, nevertheless, requires our particular attention. Forty squadrons of them are sufficient for an army of from 40 to 50,000 men. Their movements should be simple, necessary, and free from all tendency to lightness ; the essential point being to teach them to engage in a firm body, and never to disperse. The mounting of grand

guards is the only duty which they are to do ; for escorts, detachments, and parties, are always to be composed of lighter troops. In general, they should be upon a similar footing with the heavy artillery, and never suffered to march but with the army.

The men are to be slender in person, and from five feet six to seven inches high : their horses to be strong and thick, and never under fifteen hands two inches high. Those of the Germans are the best.

They are to be armed from head to foot, and the front-rank to have lances hung by a slender strap to the pummel of the saddle ; swords also four feet long, with stiff three-square blades ; carbines, but no pistols, as they will only increase the weight ; stirrups ; but, instead of saddles, the \* bows only, with a pair of pannels stuffed, and covered with black sheep-skins, which are to serve by way of a case, and to come across the horse's chest.

In regard to dragoons, there must be at least twice as many as of horse : but their regiments are, nevertheless, to be composed of the same numbers. Their horses are not to be above fourteen hands high, nor under thirteen hands two inches. Their exercise must be full of spirit and velocity ; and they are also to know perfectly well that of the infantry : their arms are to be fuses, swords, and lances ; which last, when they dismount, will serve instead

\* See plate 13.

of pikes. Their saddles and furniture are to be the same with those of the horse: their persons must be small, and their height from five feet to five feet one inch; never exceeding two. They are to form by squadrons three deep, and to march in the same order as the horse.

When they dismount, their ranks are to be open, that they may be able to wheel to the right by half-quarter ranks, and from four form eight deep, according to the \* plan annexed. After they have linked their horses, they are to march into the front and form, leaving the right and left hand man of every rank on horseback to attend them. But I shall explain this evolution more particularly in article 4.

The rear-rank must be taught to vault and skirmish, after the same manner as the light-armed troops, always retreating by the intervals between the squadrons, and rallying in their rear: but the front and centre ranks are to stand fast, as the horse do, and their fusces to be slung.—These dragoons are to be employed on all the petty service of the army; to beat up the enemy's quarters; to form escorts; to furnish out-parties; and to scour the country.

Having thus explained, in general, the proper duties of the cavalry, it becomes necessary to proceed to the subject of the second article.

\* See plan 15.

## A R T I C L E II.

*Of the armour of the cavalry.*

I AM at a loss to know why armour has been laid aside ; for nothing is either so useful or ornamental. Perhaps it may be said, that the invention of gunpowder abolished the use of it. But that is far from being the true reason ; because it was the fashion in Henry IV.'s reign, and since, to the year 1667 : and every one knows, that powder was introduced amongst us long before that time. I shall endeavour to make it appear, that its disuse was occasioned by nothing but the inconvenience of it.

That a squadron totally unguarded, according to the present custom, will stand but a bad chance, opposed to one armed from head to foot, is incontestable ; for their swords must be useless to them. Their last and only resource, therefore, is to fire. This, as it is always highly advantageous to reduce an enemy to such a necessity, becomes an affair well worthy our attention.

I have invented a suit of armour, consisting of thin iron plates, fixed upon a strong buff-skin, the entire weight of which does not exceed thirty pounds. It is proof against the sword and pike : and although I cannot alledge it to be the same against a ball, especially one that is fired point-blank ; nevertheless, it will resist all such as have not been well rammed  
down,

down, as become loose in the barrel, by the motion of the horses, or are received in an oblique direction. But supposing that you do sustain the enemy's fire, that of the cavalry is never very dreadful: and it is a general observation, that those who have availed themselves of it, have been always defeated. It therefore becomes adviseable, even to oblige them to give their fire; which cannot possibly be effected with more certainty and ease, than by arming your cavalry in the manner which I have been proposing; for as that will render them invulnerable by the sword, an enemy will naturally be provoked to use their small-arms: but the instant your troops have received their fire, they will rush upon them with irresistible impetuosity, grown doubly desperate from a consciousness of their own security, and a thirst of revenge for the dangers they have but just escaped. And how can those whose bodies are quite unguarded, be able to defend themselves against others, who are thus, in a manner, invulnerable? for their persons are so little exposed, that it will be impossible to wound them mortally. — If there were only two such regiments in a whole army, and they had but routed a few squadrons of the enemy, the disorder would presently become general, from the formidableness of their appearance.

This kind of armour will not only have a good effect to the eye, but reduce the expence of the cloathing considerably; for nothing more will be required, than a small buff-skin every  
fix

six years; a cloak every three or four; and a pair of breeches.—The hat is to be exchanged for the Roman helmet; which is so graceful, that nothing can be comparable to it; and it lasts, as does also the armour, during a man's life.—Thus the dress will be rendered much less costly, and more ornamental: your cavalry will no longer be in a condition to dread that of the enemy; but rather be fired, from a sense of their superiority, with an eagerness to engage them. The prince who first introduces this custom amongst his troops, will reap his advantage from it; for I should not be at all surpris'd, to see ten or a dozen such horsemen, attack and defeat a whole squadron, because fear would prevail on one side, and courage on the other.

To say then, that the enemy will adopt the same measures, is to admit the goodness of them: nevertheless, they will probably persist in their errors for some time, and submit to be repeatedly defeated for years, before they will be reconciled to such a change; so reluctant are all nations, whether it proceeds from self-love, laziness, or folly, to relinquish old customs. Even good institutions make their progress but slowly amongst us; for we are grown so incorrigible in our prejudices, that such whose utility is confirmed by the whole world, are, notwithstanding, frequently rejected by us; and then, to vindicate our exceptions upon every such occasion, we only say, *'Tis contrary to custom.*



To induce a conviction of what I have advanced, one need but call to mind the number of years during which the Gauls were perpetually conquered by the Romans, without ever attempting to retrieve their losses by any alteration in their discipline, or manner of fighting.—The Turks are now an instance of the same ; for it is neither in courage, numbers, nor riches, but in discipline and order, that they are defective.

At the battle of Peterwaradin, they had above 100,000 men ; we only 40,000, and yet defeated them. At that of Belgrade, they had more than double their former number ; we not 30,000 ; and there also we conquered : and this will always be the event of their battles, while they depend upon rude numbers, in opposition to skilful conduct. These examples ought moreover to persuade us, never to be prevented in any thing.

Any objections which may be made against this armour, from a supposition that a shot received through it will be more dangerous, are immaterial ; because a ball will only force its own passage through the iron-work, without carrying the broken part into the wound along with it. But let us even grant it to be so, and only weigh the advantages resulting from the use of it, with the bad consequences which will attend the want of it, and we shall find the balance greatly in our favour : for what will signify the loss of small numbers thus occasioned by their armour, provided that, in  
I general,

general, it gives us the superiority over our enemies, and wins our battles? If therefore it be considered, how many men lose their lives in an engagement by the sword, and how many are dangerously wounded by random and weak shots, against all which this kind of armour will be a protection, one cannot avoid acknowledging the utility of it.—Nothing but indolence and effeminacy could have occasioned its being laid aside: to carry the cuirass, or trail the pike during whole years, for the uncertain service of a single day, was deemed perhaps a hardship; but when a state so far degenerates, as to suffer the discipline of its troops to be neglected, or convenience to supply the place of utility, one may venture to foretell, without the gift of prophecy, that its ruin is approaching.

The Romans conquered the world by the force of their discipline; and in proportion as that declined, their power decreased. When the Emperor Gratian had suffered the legions to lay aside their cuirasses and helmets, because the soldiers, enervated by idleness, complained that they were too heavy, their success forsook them; and those very barbarians whom they had formerly defeated in such numbers, and who had worn their chains during so many ages, became conquerors in their turn.

# ARTICLE III.

*Of arms and accoutrements for man and horse.*

THE men are to have rifled \* carbines ; which carry much further than any others, and are more easily loaded, as the ramming down of the charge will be avoided, which is very difficult to perform on horseback : the bore of the barrels must be narrow, which will increase the violence of the ball in its discharge : they must be always slung over their shoulders in an engagement, as well as on a march.

They are also to have pouches fixed to their waist-belts, for the convenience of carrying any thing, like those in use amongst the Imperial cavalry.—Their swords must be slung after the same manner as the carbines, because in that position they will be less inconvenient, and more ornamental : their blades must be three-square, that they may be effectually prevented from ever attempting to cut with them in action ; which method of using the sword never does much execution : they are also much stiffer, and more durable, than the flat kind : they must be four feet in length ; for a long sword is as necessary on horseback, as a short one is on foot.—Pistols are totally to

\* This kind of carbine, by the assistance of a spring, opens at the breech, and, as has before been observed, receives the charge there. The barrel is also rifled ; on which account, and in order to avoid a circumlocution, that epithet only will for the future be made use of to express this entire piece of machinery.

be laid aside ; for they are only a superfluous addition of weight and incumbrance.

The front-rank should be furnished with lances ; which M. de Montecuculli, in his memoirs, prefers to all other weapons in use amongst the cavalry ; and even says, that they are irresistible : but then it is necessary that the lancers should be armed from head to foot. — The length of these lances must be about twelve feet, and the staffs hollow ; they weigh about six pounds, and will serve in pitching the tents, as will be explained hereafter. Thus the incumbrance of tent-poles will be avoided, which have a very bad appearance upon a horse, at the same time that they greatly increase his burden.

We now come to the horse-accoutrements : And with regard to the bridle, I am far from approving of that with a bit : instead of which, I would recommend a head-stall having two straight branches ; and from the part where the bit is usually placed, a leathern strap should pass over the horse's nose, as may be seen in plate *A*. This being contrived to draw close, in proportion as the rider tightens his reins, will govern a horse effectually, and answer much better than any bit : one may stop and manage the most headstrong horse at pleasure, without spoiling his mouth, or inflaming his jaws.

There is a considerable advantage attending this sort of bridle, in that a horse will be able to feed with it on, as well as off ; for, by on-

plate *A* figure *R*

ly

ly slackening the reins, he is at full liberty to open his mouth ; and by tightening them again, he is compelled to shut it, which will prevent his lolling out his tongue, and put a stop to several other bad customs which are learned by the bit : it will moreover make him raise and carry well his head. It is originally the invention of Charles XII. King of Sweden.

With regard to the saddle, I think it extremely defective. If a horse grows lean, the bow bears upon his shoulders, and galls him : if he rolls himself upon the ground, he breaks it. Thus a man becomes obliged to march on foot ; for if he rides upon it afterwards, he spoils the horse's back : besides, the buckles, stirrup-leathers, and other appurtenances, are hurtful, expensive, and heavy : they are perpetually growing out of repair ; and one is frequently obliged to have recourse to town-saddlers, which is attended with no small inconvenience.

From these defects of the saddle now in use, I have been induced to invent another, the form and construction of which will appear from plate 13, and the following explanation.

— The bow is to be made of iron, strong and well tempered, and fixed upon a pair of cloth or leathern pannels, stuffed with either wool or hair, to the end of which must be fastened the crupper : over these must be placed a black sheep-skin, or one of any other animal, which will serve at once for housing, and as a covering for the pannels : this skin is to be

*plate 5 figure 13*

be brought across the horse's chest, and will have a graceful effect; underneath it also must go a surcingle, which, in that position, can never gall either the horse or his rider, who, at the same time, will have a very close and easy seat. The stirrups are to be the same as those used at the manege, fastened at the bow of the saddle, and capable of being shortened or lengthened at pleasure. These pannels and skins are never to be taken off the horses backs, either by night or day, unless it be to dress them, after which they must be put on again. They can lie down with them very well; and when any sudden alarm happens, the men, having nothing to do but to mount, are formed in an instant. On grand guards, or in rainy weather, all that will be required to keep the skins clean and dry, is to roll them up upon the bows. In cases of emergency, the men may make the pannels themselves.

This entire equipage does not cost the third of ours; is infinitely more commodious; weighs nothing; and never galls a horse's back.—Having thus described the accoutrements of the cavalry, I shall proceed to their utensils.

Every man is to be furnished with a large sack, seven feet in circumference, and five in depth; with slings for the arms, as may be seen in plate 4<sup>th</sup> fig. these being filled with forage, and the men mounted again, are to be placed by their comrades *en croupe*, but as close to their backs as possible: upon any alarm,

plate 4<sup>th</sup> fig 12

they

they are to throw down their sacks, and to form in squadron. Thus, as they are never to go without their arms, instead of foragers dispersed about in a disorderly manner, they immediately become a regular body of troops, prepared to give the enemy a warm reception. But I shall treat hereafter more at large upon this subject, in the article of forage.

While the horses are grazing, the men are to cut down the forage by handfuls with sickles, and to put it in their sacks; but it must be such as is quite dry, although there should not be a sufficient quantity upon the spot to fill them; for the horses will not only have fed plentifully while it is gathering, but will carry away, without any kind of fatigue, or injury to their backs, as much as will serve them for two or three days: from one piece of ground one must go to another, and by the time that the last is exhausted, the first will have produced a fresh supply. Thus, provided that there are five or six of these in alternate use in the *environs* of a camp, the cavalry may be subsisted for a considerable time, without being harassed, by long marches, to fetch their forage. These sacks, if stuffed with straw, will also occasionally serve for beds.

Sickles are better than fitches, which are not only troublesome, but have a very disagreeable appearance upon a horse.

Instead of a canteen or barrel, every man is to have a goat-skin bottle, like those made use of in hot countries to hold liquors in. This,  
with

with his linen, stockings, cap, a cord, and his few other necessaries, is to be put into the bottom of his sack, which must be afterwards rolled up together with his cloak, and fastened with two straps upon the pannels behind him.—Thus will be reduced to a very small compass, that monstrous load which is now carried by the cavalry; and which both hurts a great number of horses, and incumbers the men. But it will be necessary every now and then to examine the mens baggage, and to oblige them to throw away every thing that is useless. I have frequently done it, and one can hardly imagine what quantities of stuff they constantly carry with them, all which serve to increase not a little the burden of their horses. It will be no exaggeration to say, that the very superfluities which I have sometimes found in the review of a single regiment, and ordered to be thrown away, have been sufficient to load twenty carriages. This is one of those evils to which the ruin of our cavalry may be in part ascribed.

#### A R T I C L E      IV.

*Of the establishment of cavalry; together with their manner of forming, engaging, and marching.*

THE regiments of horse and dragoons ought to be composed like those of the foot; that is to say, of four centuries, or squadrons,



drons, each of which is to consist of 134 men, according to the following detail.

*The detail of a century of cavalry.*

1	Centurion.
1	Lieutenant.
4	Sub-lieutenants.
1	Cornet.
1	Quartermaster.
1	Captain at arms.
1	Fourier.
2	Standard-bearers.
2	Trumpeters.
10	Brigadiers.
10	Sub-brigadiers.
100	Men.

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Total 134

Staff-officers the same as to a century of foot.

With respect to the formation, the squadrons of horse are never to be diminished in their numbers, but always kept complete to this establishment, because that a great deal of time is required to perfect a trooper in his business; that none but the veteran horses will answer in service; and that they are to form a solid body.

As to the dragoons, they may be either reduced, or dismounted in time of peace; for provided they do but remain upon the establishment

blishment of the infantry, they will be always useful.

They are to march by two's in narrow places and defiles, but by squadrons where-ever the ground will admit. When they are obliged to lessen their front, the best method of doing it, is to rank off, and march by the centre, as may be seen in plate 1 *Fig 14* The same method is to be observed in forming again.

In time of war, when an enemy is in the field, they must always march in squadron, and form instantly again after the passage of all defiles, especially where there is any probability of danger. When they are to form, and march by half-squadrons, it must be done by the centre.

In marching by two's, the greatest care must be taken, that none of the men double their files; for if one does it, all will do it; by which means a body of cavalry will consume twelve hours on a march, which otherwise would not have required above half that time. One false step is sufficient to create all this delay, unless the officers are particularly attentive: for, if not immediately remedied, it will throw a whole column into confusion; some will be halting in one place, others again galloping in another, in order to overtake their leaders. Nothing is so destructive to the cavalry as this want of attention; it should therefore be punished with the utmost severity. When there are holes, or broken parts in the road, which cannot be avoided, it is much better to make

a general halt, and repair them, than to suffer troops to march over them in disorder. In passing through waters likewise, the horses must never be suffered to drink ; for the halting of a single man for any such purpose, will stop a whole army. As often therefore as that happens, the officers should repair immediately to the spot, and, instead of fruitless reprimands, and ill-timed mercy, instantly chastise the offender in an exemplary manner ; which is the only effectual method of putting a stop to such irregularities ; for otherwise the men will be perpetually finding out some weak pretence or other to halt, after which it is impossible for them to recover their ranks, without galloping. The consequence of this, in the course of a day's march, will be, that they will not be able to reach their camp till night, when they might, and ought otherwise to have arrived there by noon. If therefore this abuse is not prevented by extraordinary care and attention, a few days march is sufficient to ruin the best cavalry.

All the different movements that the horse are required to learn, are the wheelings upon the centre, and to the right and left by half-quarter ranks ; which last they will have occasion to make use of, in order to take possession of a piece of ground, when its narrowness will not permit them to do it in squadron ; and likewise to vary their manœuvre, or to change their disposition, as often as situation and circumstances may require it. Nevertheless, the

wheelings upon the centre, when practicable, are always the best, because they are the most simple.

The dragoons must be also taught to wheel to the right and left by half-quarter ranks with great celerity and exactness, when they are to dismount. A troop consisting of no more than fifty men, is to wheel by quarter ranks; and by half-quarter ranks, if it exceeds an hundred. When a body of dragoons arrives at any pass which they are to defend on foot, they are immediately to draw up in squadron; after that to perform the evolution of wheeling to the right by half-quarter ranks, as described in plate 5.<sup>13</sup> and dismount. The horses, being linked together, are to be left under the care of one brigadier, and one sub-brigadier *per* squadron, and the right and left hand man of every rank; who will be able to march them about, and to govern them with ease: it must, nevertheless, be rendered familiar to them by practice.

It should be observed as a fundamental rule, never to halt in wheeling upon the centre, in order to dress and straighten the ranks, for nothing is more dangerous in action.

When the horse are to charge the enemy, they must be strictly enjoined to keep their ranks and files close, and not to disperse on any pretence: their standards are to be sacred to them; and whatsoever may be the event of the engagement, their duty is always to rally to them. When cavalry are so well versed in

*plate 5<sup>13</sup> figure 15*

these

these principles, as to be governed by them in practice, they will be invincible.

In charging, they are first to move off at a gentle trot to the distance of about an hundred paces ; from thence to increase their speed in proportion as they advance, till they fall at last into a gallop : but they must not close to the croup, till they come within about twenty or thirty paces of the enemy ; and even then, they are to receive the following word of command, as a signal for it, from an officer, *Follow me !*—— As this manœuvre is to be performed with the utmost celerity, they must therefore be familiarized to it by constant exercise ; but it is above all things necessary, that they should practise galloping large distances. A squadron, that cannot charge two thousand paces at full speed without breaking, is unfit for service \*. It is the fundamental point ; for after they have once been brought to that degree of perfection, they will be capable of any thing, and every other part of their duty will appear easy to them.

The dragoons are not only to be rendered as perfect as the horse in these exercises, but must also be taught to skirmish ; their rear-rank is to disperse, to retreat, and form again with celerity : they are to practise firing on horseback, with such rifled fuses as are used by the light-armed troops, and likewise to learn the exercise of the infantry.

In time of peace, and in winter-quarters in

\* The Prussian cavalry are upon this footing.

time of war, their horses are to be violently exercised, at least three times a-week, in order to inure them to fatigue, and to keep them in wind.—The same severe usage is also proper for the heavy cavalry at those times; for they must never be spared, or tenderly treated but in the field, where they are constantly exposed to hardships.

The best opportunities of teaching horses to stand fire, are when the infantry perform their exercises; but they must be broke to it by slow degrees, and very gentle measures; and never be beaten, but, on the contrary, stroked and encouraged as much as possible. In the space of a month, they will be perfectly reconciled to it, and even lay their heads on the muzzle of a fusée, without any fright or surprise. Nevertheless, they must not be suffered to approach too close during the firings; for if once they get burnt, it will be no easy matter to bring them near again: neither must they be allowed to wheel suddenly about, or sidewise, when the men fire; for unless those motions are guarded against at first, they will presently become habitual, like those of the hussars.

## A R T I C L E V.

*Of foraging, green and dry.*

**F**ORAGING makes an essential part of the art of war. The country where it is intended to be, must first be reconnoitred; and, in doing that, the disposition must be made: the

the number of horse or foot required to form the chain, is to be proportioned to the degree of danger, and the nature of the situation; but one must always endeavour to cover at least one side effectually from the insults of the enemy.

The method of foraging for the cavalry, which I have already proposed in the third article, will, in a great measure, prevent those disagreeable accidents, to which such parties are in general exposed; yet they are always to have one standard, two trumpeters, and one field-officer *per* regiment, and one subaltern *per* squadron.

The foragers ought not to disperse themselves too far: every regiment is to take possession of the piece of ground which is assigned to it, and its foragers are to be obliged to confine themselves within the limits of it: a detached guard of ten men *per* regiment, are to remain with their standard, together with the two trumpeters; who, in case of any alarm, are to sound the *call*; upon which their respective foragers are immediately to repair thither.

As soon as every regiment has done foraging, and all the men belonging to it are assembled, it may be at liberty to return to camp, without waiting for the others; but the chain of centries is to continue, as long as the commanding officer shall think proper.

It is incredible how much the horses are galled by truffles; for they weigh five or six  
hundred

hundred pounds, and sometimes remain upon their backs eight or ten hours: now and then they are detained abroad whole nights on foraging parties; which alone is sufficient to ruin them, exclusive of any other duties. If, in marching through rough roads, or defiles, a truss breaks, or drops off, or a horse falls down, the whole party are obliged to halt. This is an accident which frequently happens; and while it is repairing, the other horses being impatient of their burdens, grow restless, and kick one another. Thus, instead of one truss, there are presently twenty thrown down. In rainy weather likewise, the ground is so soft and slippery, that it is impossible for them to keep their feet; by which means the forage must be dragged through the dirt, and consequently a great part of it spoiled. In short, it is better to deprive the poor animals of it altogether, than to oblige them to purchase it at so dear a rate.

According to the method of foraging that I propose, neither loss nor inconvenience can happen; the horses will bring a greater quantity of forage into camp, without being exposed to any sort of injury in the carriage.— But besides the many difficulties attending the present manner of foraging, which I have above recounted, one might add the confusion and distress that must ensue, if the foragers are attacked at any distance from their camp. The loss of all their forage is the least misfortune that can befall them; for as they always take  
to



to flight on such occasions, and every man endeavours to provide for his own safety only, their disorder is such, that if they find a bridge, ford, or defile in their way, you will see them precipitate themselves by hundreds: their fear so totally divests them of their understanding, that they crush and drown one another.

My scheme, if followed, will effectually prevent any thing of this kind from happening: for the enemy, being advertised of your disposition, will not presume to attack you, from a certainty of being repulsed; at least not without a very superior force; in which case it will be impossible for them to surprise you, or to conceal their march with so large a body.

Having dispatched what is called green foraging, I shall now proceed to speak of dry. This usually commences in the month of September. To do it in safety, it is necessary that the villages should be possessed by infantry, and the adjacent country covered by patrols, and advanced parties of cavalry: the main body must be posted as near the centre as possible, that it may be in equal readiness to march to any part which may be attacked. After the foraging is over, all the parties must be assembled, in order to form the rearguard; from which detachments are to be made, to patrol upon the flanks, if they appear exposed to any danger; and to take possession of the passes, defiles, eminencies, &c.

That part of the forage which is received in  
L grain,

grain, the men must thresh; and cutting the straw in half, put the whole into their sacks\*. This method of conveyance prevents all that loss, which is unavoidable in the use of trusses, where all the corn sheds in carriage.

## A R T I C L E VI.

### *Of tents, and the method of incamping.*

fig 16 **I** Have already observed, that lances are to supply the place of tent-poles in incamping: in plate 16. therefore is represented a tent, supported in the manner which I have above recommended, and capable of containing a whole century, or squadron, the men as well as horses included. It is of infinite consequence to keep the horses warm, and under cover, particularly in the autumn, when the nights grow cold; the omission of which is one of the principal reasons why they waste away so visibly during that season.

These tents will effectually protect them from the severity of the weather, especially if the men surround them with branches platted together, and sweep the dung into the intervals between, because that cementing will form a kind of wall. With these precautions the horses will require much less feeding, and consequently not be exposed so frequently to the fatigue of fetching forage. By the same rule, an army will be able, both to subsist in one place, and to keep the field much longer,

\* See plate 4. fig 12

than an enemy not having recourse to the like measures; all which appear to me circumstances highly deserving a serious attention.

According to the present method of picketing the horses, they certainly spoil the greatest part of their straw when it rains, by trampling it amongst their dung; and although the men supply them with fresh litter upon such occasions, that also must presently be reduced to nothing but filth: to avoid lying down upon which, they rest with their four feet and head under them, catch a severe cold, are seized with a fit of the colic, and die upon the spot.

Under these tents there will be no occasion for straw at all, as the ground must always remain dry; which will produce a saving of at least one half of the usual quantity of forage, and consequently diminish, in the same proportion, the labour of fetching it. Thus you will both spare your horses, and be able to subsist a much longer time in the same camp.

If all these things are put together, and properly considered, the advantages resulting from what I have proposed will easily be conceived. Let us but compare my method of foraging with that in present practice; reflect upon the various accidents, losses, and fatigues, which constantly attend the latter, opposed to the ease, convenience, and security of the former, and it will appear how much it deserves the preference.

The carriage of these tents, notwithstanding their size, will be no particular incum-

brance to the horses ; or they may be made to take in pieces, and be carried by the men.—— The quantity of cloth required for one of them is near fifty ells less than what is used for a squadron of 130 men, according to the present method ; which will appear an extraordinary difference. Nevertheless, such as have curiosity enough to make a calculation, will find it true.

## A R T I C L E VII.

*Of detachments, or parties of light-armed cavalry.*

THE theatre or situation of a war must determine the utility, as well as success of parties. Large detachments of cavalry are seldom employed, but upon enterprises which require vigour and expedition ; such as the intercepting of convoys, surprising of posts, or sustaining of advanced parties of infantry ; on all which they are of great use.—— Amongst other instances, suppose you receive intelligence that the enemy have a design to attack your rearguard, or your baggage, with a considerable force ; they will be deterred from putting it in execution, if, the day before your march, you have detached a large body an opposite way ; for that will serve to amuse them, and, being at a loss to know positively its route or destination, they will be afraid of falling in between both your parties, and becoming exposed to two fires. Detachments of this kind should be always strong, and the commanding

commanding officers men of parts and experience ; for of all the duties incident in service, these are the most replete with hazard and difficulty in execution ; at least, where the object is not fixed : otherwise, when ordered to take possession of, or surprize some particular post, or to intercept some convoy, they have nothing to do but to be governed by their instructions.

The duty of the cavalry is such as renders a knowledge of the seat of war indispensably necessary to them ; their excellence consists in resolution, and a quick perception of every situation or circumstance capable of producing any advantage. Parties of them must be always out ; but, in general, they are not to consist of more than fifty men, and should avoid engaging with the enemy ; for the intention of them is nothing more than to gain intelligence, and to pick up prisoners.—If the enemy is bold in his measures, and makes large detachments to oppose yours, a watchful eye must be kept over his conduct, till, by a constant observation of all his proceedings, a successful opportunity may be found of attacking him by surprize with a more powerful force. Having then obtained a superiority in the field, he will no longer presume to molest your small parties : you will be able to observe all his motions, so that it will be impossible for him to take the least step without your receiving immediate intelligence of it ; you will remain secure and undisturbed, he exposed to continual

continual fatigue and danger ; your foraging-parties will be subject to no interruption, his obliged to use the utmost precautions to escape it.

These are the duties on which dragoons are to be employed ; and, after having been inured to them by practice, they will be infinitely superior to hussars ; because they are capable of the same expedition, and much more service. A party of fifty dragoons need be under no apprehensions from the appearance of a multitude of hussars ; for they are always to march on a trot ; and when they come to the least defile, the hussars will not dare to pursue them further. After they have been taught, by exercise and experience, to know their own power, no enterprise will appear difficult to them ; insomuch that even the enemy's grand guards will be obliged to submit to perpetual insults from them.

## C H A P. IV.

1. Of the grand manœuvre.
2. Of the column.

## A R T I C L E I.

### *Of the grand manœuvre.*

**I** Am persuaded, that unless troops are properly supported in an action, they must be defeated ; and that the principles which

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
M. de Montecuculli has laid down in his memoirs, are founded upon certainties. He says, that infantry and cavalry should be always reciprocally sustained by each other. Nevertheless, we, in direct opposition to his measures, post all our cavalry upon the wings, and our infantry in the centre, each to be sustained by itself only : which disposition, as the interval between our lines is usually five or six hundred paces, is in itself sufficient to intimidate the troops ; because it is natural for every man who sees danger before him, and no relief behind, to be discouraged : and this is the reason why even the second line has sometimes given ground, while the first was engaging ; which is what many others, probably, as well as myself, have seen happen more than once ; and although it seems hitherto to have escaped the reflection of any, cannot, as I have already observed, be imputed to any other cause, than the frailty of the human heart. The following is a transcript of what the above-mentioned illustrious author says upon this subject.

“ In the armies of the ancients, every regiment of foot had a certain proportion of horse and artillery. The horse were divided into two sorts, under the appellation of *heavy-armed* and *light-armed* ; the former of which wore breast-plates : why therefore would they incorporate these distinct bodies together, unless it was on account of the absolute necessity of such a connection, and  
“ the

“ the mutual service they would be capable of  
 “ rendering each other, by acting in concert ?  
 “ According to the modern practice, where all  
 “ the infantry is posted in the centre, and the  
 “ cavalry upon the flanks, to the extent of se-  
 “ veral thousand paces, how is it possible they  
 “ can support each other ? If the cavalry are  
 “ defeated, it is evident that the infantry, be-  
 “ coming abandoned, and their flanks exposed,  
 “ must unavoidably share the same fate from  
 “ the enemy’s cannon at least, if not by other  
 “ means ; which happened to the Swedes in  
 “ the year 1614. When their cavalry had  
 “ been driven off the field of battle, they per-  
 “ ceived the error of their disposition ; and, in  
 “ order to remedy it, posted some platoons of  
 “ musketeers between the squadrons : but all  
 “ efforts were then ineffectual ; for the squa-  
 “ drons were totally disordered, and the pla-  
 “ toons, not having any body of troops at hand  
 “ to retire to, nor pikemen to cover them,  
 “ were put to the sword ; for how could they  
 “ possibly retreat to their infantry, which was  
 “ at so great a distance ?”

It is for these reasons that I have posted small  
 bodies of cavalry, at the distance of thirty pa-  
 ces, in the rear of my infantry ; and battalions  
 of pikemen, formed in the square \*, in the  
 interval between my two wings of cavalry ; in  
 the rear of which likewise, it will be able to  
 rally, if broken or repulsed †.

My

\* See plate 7. 

† Perhaps it may be objected, that this cavalry, if repulsed  
by



My second line of cavalry will never fly, so long as they see the square-battalions in their front, and their countenance will also animate the first. The battalions will maintain their ground, from the persuasion of being soon succoured by the cavalry, who, under the cover of their fire, and a vigorous resistance, will presently form again, and renew the charge with fresh courage, in order to retrieve their honour, and wipe out the disgrace of their late discomfiture: the battalions will moreover serve to cover the flanks of the infantry.

Some very improperly post small bodies of infantry between the intervals in their line of cavalry. The weakness of this disposition is alone sufficient to intimidate them; for the foot see, that if the cavalry are defeated, they must inevitably be cut to pieces: and if the cavalry, who have also a dependence upon them, make but a brisk movement, they leave them behind; so that perceiving they have lost their assistance, they soon fall into confusion; and being put to flight, leave the flanks of your army open to the enemy.

Others again post squadrons of cavalry amongst their infantry; which is equally absurd; for the destruction of horses from the enemy's

by the enemy, will fall into disorder upon the square-battalions. But it should be observed, that the Marshal furnishes them with pikes on purpose to render them capable of opposing the shock of cavalry: besides, the intervals between them are so large, that however precipitate the horse might be in their retreat, it is improbable they would fall upon them; but, for a farther security, they might be covered with chevaux de frise.

M

fire

fire occasions disorder; and if the cavalry give way, the infantry will presently do the same.

But I would ask in what manner squadrons in this disposition are to act? Are they to stand fast, sword-in-hand, and wait the attack of the enemy's infantry, firing and advancing upon them with fixed bayonets? or must they make the charge themselves? If they do the last, and are repulsed, which will most probably be the case, they must break their own infantry in their retreat; because it will be difficult for them to find their former posts again, and the intervals allowed them being small, will certainly have been filled up: for the battalions are subject to such great inconveniencies from their present method of forming, that the disorder of a few files, whether occasioned by their own movement, the doubling of the ranks, or the enemy's cannon, is sufficient to throw the whole into irretrievable confusion.

—It is far otherwise with my centuries: they follow each their respective standard, and keep in a body together; all disorders amongst them are easily remedied; and if not, so long as they are guided by their standards, which are to range in a line with that of the legion, no fatal consequence can ensue; because the officers will be able to keep the ranks straight, which it is impossible for them to do in the battalions; and this being also one great defect in M. de Folard's column, I shall take the present opportunity to give my sentiments of it.

## A R T I C L E II.

*Of the Column.*

**N**Otwithstanding the very great regard I have for the Chevalier Folard, and the high esteem I entertain for his ingenious writings, yet I cannot agree with him in opinion, concerning the column. It is striking indeed, and formidable in appearance, and the idea of it which first presented itself to my imagination, seduced for a while my judgment, till, by trying it in execution, I became convinced of my error. The following analysis, or calculation, will be necessary to discover the defects of it.

In action every man is to be allowed one foot and a half, or eighteen inches distance; and the flanks of the column are to face outwards; which flanks, in whatsoever order it is formed, must be always composed of at least forty files in depth, upon twenty-four ranks in breadth: thus, when faced, it consequently takes up sixty feet for its flank-front. In marching, it requires one hundred and twenty, which is double its former distance, because a man will not be able to move without kicking his leader, if confined within the space of eighteen inches; but to march with celerity, must be allowed three feet: so that when the front of the column marches first off its ground, the rear will be obliged to wait, till it has gained sixty paces; and likewise to march the same distance, after the front has halted;

M 2

which,

which, as it must make intervals in the flanks, will expose them to great danger. This defect will naturally be increased, in proportion to the number of files which are added ; so that a column, consisting of two hundred and forty, will occupy in its standing order three hundred and sixty feet in length ; and, of course, seven hundred and twenty, marching. After having pierced the enemy, its flanks are to face to the right and left outwards, in order to charge their broken ranks ; but as it takes up double its proper allowance of ground, its files will remain open, and large intervals be left ; especially if the charge is made with speed and impetuosity, which ought to be the property of the column.

The *Chevalier* is very much deceived in imagining it to be a body capable of moving with ease ; insomuch that I do not know any one so unwieldy, particularly when it is formed in the manner just above described. If it happens, that the files are once disordered, either by marching, the unevenness of the ground, or the enemy's cannon, which last must make dreadful havock amongst them, it will be impossible to restore them to good order again. Thus it becomes a huge, inactive mass, divested of all manner of regularity, and totally involved in confusion.—I do not think, notwithstanding what the *Chevalier* says, that the weight of it can be of any great consequence, for the men do not push one another forwards in the manner which he describes ;

scribes ; neither is it possible they should, while they take up three paces distance, which they are obliged to do in marching.

In retreating, it has the advantage of battalions formed in the square ; not that it is capable of marching with more celerity, but because every part moves together ; and although it be even pierced by the enemy's cavalry in pursuit, yet the injury it will thereby sustain is inconsiderable ; for they must be exposed to a fire from behind, and the interval they make will presently be closed up.

Two battalions, formed back to back, will answer the same purpose, marching by files, and facing to the right and left outwards, when necessary. This method of retreating must be performed very slowly ; for otherwise the rear will soon be separated from the main body, by reason of that distance of three feet, which every man will take up in marching.—But to believe, that the column is an active and light body, is an error of which I am thoroughly convinced ; inasmuch that I am even induced to think it a dangerous disposition, when composed of but twenty-four by sixteen, on account of the difficulty of forming it again, when once broken or disordered. Properly, it should never consist in breadth of more than two battalions, formed each four deep ; which does not at all confound their natural order.

What I have been saying concerning the room which every man must necessarily take up, shews the danger of marching by files. If  
you

you do it in the presence of an enemy, in order to fill up any interval, you must inevitably be undone; for your battalion will then occupy double its former quantity of ground, and you will also require double the proper time to form it again: As, for instance, supposing your battalion consists of 600 men with files closed, it will cover 225 feet; if it is to gain ground to the right, the right-hand man will have marched that distance before the left-hand man has moved; and after the former has halted, the latter will have the same number of feet to march, before the battalion can be in its proper order, to face to the front again; which together takes up as much time as would be necessary to march the distance of 450 feet, or 180 paces. If then the enemy is a hundred paces off, and seizes this opportunity to charge you, he will have the advantage of as much time, before you can be formed, as is required to march eighty paces. The danger of this movement naturally increases, in proportion as you augment the number of troops that are to make it; for if you have four battalions, and the enemy is at the distance of 800 paces, you are exposed to as great a disadvantage. In this I proceed upon geometrical principles, to which it is necessary to have recourse on many occasions in war.

The *taät* or *cadence* is the only effectual remedy for these defects, on which the event of all engagements totally depends. It is what I have dwelt upon the longer, on purpose to demonstrate

monstrate the great efficacy of it, and, at the same time, to expose the ignorance of our modern disciplinarians ; who, notwithstanding they concur with me in regard to the reality of these errors, remain yet unacquainted with any other method of avoiding them in practice, than by marching flow.

We cannot even bring a single battalion, drawn up but four deep, to the charge, without being subject to the inconvenience of which I have been speaking ; unless we march at a snail's pace, our ranks and files, when we approach the enemy, are open. This monstrous defect in our discipline is what gave rise to the present method of firing ; for to charge otherwise, it is necessary to move briskly and together ; which cannot be done, allowing only eighteen inches to a man, without the *tactic*.

It is also impossible, that the Romans and Macedonians, as their manner of forming was in close and deep order, could engage without it. It is a term which is very familiarly used, but has hitherto, methinks, been totally misapplied or mistaken.

I have frequently been surpris'd, that the column is not made use of against the enemy on a march ; for it is certain, that a large army always takes up then three or four times more ground than is necessary to form it. If, therefore, you get intelligence of the enemy's route, and the hour at which he is to begin his march, although he is at the distance of six leagues from you, you would have very sufficient

cient time to intercept him; for his front usually arrives in the new camp before his rear has quitted the old. It is impossible to form troops that take up so much more than their proper quantity of ground, without making large intervals, and a dreadful confusion. Notwithstanding which, I have very often seen the enemy suffer it to be done without molestation; when one would have imagined, that nothing less than fascination could have prevented his taking the advantage of an opportunity so favourable to him.

The present subject might furnish a very useful chapter; for how many different countries will occasion such straggling marches? and in how many places may one make an attack without risking any thing? how frequently does it happen to an army, to be divided on its march by bad roads, rivers, difficult passes, &c.? and how many situations will enable you to surprise some part of it? How often do opportunities present themselves of separating it, so as to be able, although inferior, to attack one part with advantage, and at the same time, by the proper disposition of a small number of troops only, prevent its being relieved by the other? But all these circumstances being as various and undeterminate as the situations which produce them, nothing more is required, than to keep good intelligence, to acquire a knowledge of the country, and to assume the courage to execute; for as these affairs are never decisive on your side, and may be so on  
that



that of the enemy, the risk you run is inconsiderable, when compared with the advantages you may gain : the manner of attack is with the heads of your columns, which are to charge as fast as they arrive, and to be sustained by the others which follow ; so that your disposition is made in a manner spontaneously, and you attack an enemy without either order or support, and totally unprepared to make any defence.

Thus have I described the natural use and properties of the column. But I find I have wandered from my design, which was, to confine myself here to the rudiments, or first principles of the military art, and to reserve my observations on the sublime branches for another place.

## C H A P. V.

### *Of fire-arms, and the method of firing.*

I Have already observed, that the present method of firing by word of command, as it keeps the soldier in a constrained position, prevents his levelling with any exactness ; and that it is, moreover, dangerous in all situations where there is a possibility of coming to close quarters. You must necessarily halt, in order to give your fire ; and if the enemy reserves his, and at the same time marches briskly up, you must infallibly be defeated ; for

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your

your troops depend upon the execution to be done by their discharge, and when they afterwards perceive their expectations so dreadfully disappointed, they will certainly abandon you. — For these reasons the firing of small arms, where the close fight is practicable, ought entirely to be laid aside; but where you are separated from an enemy by hedges, ditches, rivers, hollows, and such like obstacles, it is of great use, and cannot be too much encouraged.

I have above recommended the rifled fusée, as it is charged quicker, and carries not only further, but with more exactness. According to the present method of loading, the soldiers, in the tumult and hurry of an engagement, very seldom ram down their charge, and are also very apt to put the cartridges into the barrel, without biting off the caps; by neglecting to do which, many of the arms are of course rendered useless.

In order to obviate this mischief, I would have the cartridges larger than the muzzle of the pieces, that the men may not be able through carelessness to load that way: they should also be made of parchment, and pasted up at the tops, which would easily be uncapped with the teeth; and they ought to contain a sufficient quantity of powder for both the priming and charge. The balls are to be carried in the pouches, which in action the men are to take out by four, or five at a time,  
and

and to hold them in their mouths, for the sake of more readiness in loading.

To dislodge the enemy from any post on the other side of a river; from hedges, ditches, and such other situations, where the use of small arms is necessary; I would appoint an officer, or non-commissioned officer, to the command of every two files; who should advance the leader of the first a pace forwards, and shew him where he is to direct his fire, permitting him afterwards to use his own time; that is, to avoid hurrying him to make it, before he has taken proper aim at his object. Having fired his own fusée, the man who covers him, is immediately to give him his, and so on the others of the same file, passing their arms from hand to hand, till their file-leader has discharged them all four successively. It must be extremely unfortunate indeed, if the second or third shot does not take place; for the commanding officer is close by him, observes his behaviour, directs him where to fire, and dissuades him from all hurry. Thus, as he neither waits for the word of command in any constrained posture, nor is in the least confused or interrupted by any body, he will be able to fire his number of times with great ease.

This file having done, the officer is to make it retire, and to replace it with the second; which is to perform the same as the first. After the second has finished its fire, the first, having had more than sufficient time to load, is to be advanced again; which may be repeated

in the same successive order for many hours together, if necessary.

This method of firing must do such prodigious execution, that I not only think it preferable to any other, but even irresistible: that by platoons or ranks it would presently silence: and although every man amongst them was a Cæsar, I would defy them to maintain their ground against it, for the space only of a quarter of an hour; for one can fire six times in a minute with ease; nevertheless, I shall only say four; allowing which, every fusée will have fired sixty shots in a quarter of an hour, and consequently the file-leaders of a battalion, consisting of five hundred men, thirty thousand; exclusive of the light-armed forces, which, within the space of an hour, will be able to fire about twenty thousand; and that with much more exactness than what we see used at present.

If during a siege, therefore, two regiments, disposed in this manner, are posted upon a curtain, opposite to any work which the enemy have taken by assault, and where they will require an hour's time to make good their lodgement, they must be exposed to no less than two hundred and eighty thousand shots in the doing of it.—According to the present method of firing, a soldier, after having loaded, runs upon the banquette, and pops off his piece over the parapet; but whether he fires into the air, or the fosse, is a matter of accident; for he is usually in a hurry, and does not allow  
himself

himself time either to distinguish, or take aim at any particular object: the battalions are, moreover, in confusion, and I am persuaded, that out of twenty shots, hardly two fall even within the work where the enemy has made his lodgement. Whilst, on the contrary, according to my disposition, every one will take place, which must consequently produce a very different effect. This method of firing may be also of infinite service against cavalry, especially when accompanied with the protection of my pikes.

## C H A P. VI.

*Of colours or standards.*

THE general, or commander in chief of an army, should have a standard to be carried before him, as a mark of his dignity; which would be also useful, in facilitating the means of finding him upon all occasions.

As the colours or standards are of the greatest importance in action, they therefore require our particular regard and attention. In the first place, they should all be of different colours, that the legions, regiments, and even centuries to which they respectively belong, may be readily distinguished in an engagement.

The men must be taught to think it a matter

ter of conscience, and an indispensable obligation, never to forsake them: they are to be looked upon as things sacred, and regarded with a respect inviolable. It is necessary therefore, in order to produce this effect, that they should be always attended with great form and solemnity. This is an essential point to be obtained; for after troops are once brought to such a degree of attachment to them, they can hardly ever fail of success in any enterprise; resolution and courage will be the natural consequences of it: and if, in desperate affairs, some determined fellow seizes but a \* standard, he will render the whole century as intrepid as himself, and be followed by it wheresoever he leads the way.

The standards being distinguishable by their different colours, will render the actions of every century conspicuous: A circumstance which must create the greatest emulation, because both officers and soldiers will be conscious that they are exposed to observation; that their countenance, conduct, and behaviour, are apparent to the rest of the legion.

The first century that shall have carried a pass, forced a retrenchment, or made a vigo-

\* The religious care which the Roman soldiers took of their ensigns or standards, was extraordinary. They worshipped them, swore by them, and incurred certain death if they lost them. Hence it was an usual stratagem, in a dubious engagement, for the commanding officers to snatch them out of the bearer's hands, and throw them amongst the troops of the enemy, knowing that their men would venture every thing to recover them.

rous charge, will be easily distinguished, and gain the applause of the whole army: the men, as well as officers, will from thence become more united: their exploits will be the constant subject of conversation; and the glory with which they are crowned, will be a powerful incitement to the imitation of them. Thus things, which are but trifles in themselves, will tend to diffuse a general spirit of emulation amongst the troops, and, in course of time, will render them invincible.

The particular number of every century must be distinguished by the colour of its standard: As, for instance, white might signify number 1.; black, 2.; yellow, 3.; green, 4.; red, 5.; blue, 6.; chocolate-colour, 7.; crimson, 8.; sea-green, 9.; sky-blue, 10.; black and white in a lozenge, 11.; green and yellow in two bends, 12.; yellow and blue by the angles, 13.; a green cross upon a yellow ground, 14.; a red cross *en sautoir* upon a white ground, 15.; three bends, yellow, green, and red, 16.

Every standard must have a white quarter near the staff, to hold the number of the legion, which is to be marked in Roman characters.—Thus the designs and colours will serve to distinguish the centuries of every legion, and the cyphers the legions themselves.

## C H A P. VII.

*Of artillery and carriage.*

**I** Never would have an army to consist of more than ten legions, eight regiments of horse, and sixteen of dragoons; which would amount to thirty-four thousand foot, and twelve thousand horse; in the whole, forty-six thousand men.

A general of parts and experience commanding such an army, will be always able to make head against one of an hundred thousand; for multitudes serve only to perplex and imbarraß: not that I think reserves are unnecessary, but only that the acting body of an army ought not to exceed such a number.

M. de Turenne was always victorious with armies infinitely inferior in numbers to those of his enemies, because he could move with more ease and expedition; knew how to secure himself from being attacked in every situation, and kept always near his enemy.

It is sometimes impossible to find a piece of ground in a whole province sufficient to contain an hundred thousand men in order of battle, which subjects an army that is so strong to the necessity of being frequently divided. Thus I would seize a favourable opportunity of attacking one part of it; and having defeated that, should thereby intimidate the other, and soon gain a superiority.

In



In short, I am persuaded, that the advantages which large armies have in point of numbers are more than lost in the extraordinary incumbrance, the diversity of operations under the jarring conduct of different commanders, the deficiency of provisions, and many other inconveniencies, which are inseparable from them.

But it is here somewhat unseasonable to treat of this subject, only that I have been led to make this digression for the sake of ascertaining the proportion of things.

Sixteen pounders are equally as useful as twenty-four pounders to batter in breach, and are much less troublesome in carriage: fifty of them, together with twelve mortars, and a proportionable quantity of ammunition, will be sufficient for such an army as I have just been describing. Boats, with all the proper tackling to make a bridge; twelve pontoons with joints \*, for the passage of canals and small rivers; together with all other necessary instruments and utensils. These jointed pontoons do not consume above seven minutes time in laying, and are also as readily taken up again: they are of very great use for the communication of armies, and will require only four oxen to draw them all.

The carriages for provisions must be totally of wood, without any sort of iron-work about them; such as those of the Muscovites, and also those which we see come out of the

\* See plate 5. fig. 18.

Franche-Comte to Paris : they travel from one extremity of the kingdom to the other, without damaging the roads ; one man is sufficient to drive four with ease, each being drawn by two oxen only : ten of our carriages do more detriment to a road than a thousand of these. — If we do but reflect upon the inconveniencies occasioned by our present method of carriage, we shall see the use, as well as necessity of adopting this. How frequently does it happen, that there is a total want of provisions, because the carriages have not been able to get up ? How often is the baggage, and likewise the artillery, left behind, which obliges the whole army to make a sudden halt upon the spot, however inconvenient it may be ? A little rainy weather, and but a hundred or two of carriages, are enough to break and destroy a good road to such a degree, as to render it afterwards impassable ; and notwithstanding you repair it with fascines, yet the succeeding hundred leave it in a worse condition than it was before ; for it will be cut to pieces with the wheels, by reason of that vast weight which is thus supported upon two points only.

All the carriages belonging to an army ought to be drawn by oxen ; on account, in the first place, of their equality of pace ; in the second, because they are attended with no loss ; in the third, every situation will produce sufficient forage to support them ; in the fourth, when any are maimed or destroyed,  
others

others may be had from the magazines : add to which, that only a small quantity of gear is required, and that where-ever the army halts, they immediately find their natural food and nourishment.—— A single man, and eight oxen, will be able to draw more than four men, with a dozen or fifteen horses : neither will they consume the forage which they should bring to camp, as the horses do, because they are left to pasture, while the servants are gathering and loading it ; all which is moreover done without any manner of trouble or inconvenience. Such as get maimed must be killed and eaten, and are to be replaced by others out of the magazines.

All these reasons have induced me to prefer them to horses for carriage ; but they must be likewise marked, that every one may be able to distinguish his own in the pastures.

## C H A P. VIII.

*Of military discipline.*

**N**Ext to the forming of troops, military discipline is the first object that presents itself to our notice. It is the soul of all armies ; and unless it be established amongst them with great prudence, and supported with unshaken resolution, they are no better than so many contemptible heaps of rabble, which are more

dangerous to the very state that maintains them, than even its declared enemies.

It is a false notion; that subordination, and a passive obedience to superiors, is any debasement of a man's courage; so far from it, that it is a general remark, that those armies which have been subject to the severest discipline, have always performed the greatest things.

Many general officers imagine, that in giving out orders they do all that is expected from them; and therefore, as they are sure to find great abuses, enlarge their instructions accordingly; in which they proceed upon a very erroneous principle, and take such measures as can never be effectual in restoring discipline in an army wherein it has been lost or neglected.

Few orders are best; but they are to be executed with attention, and offences to be punished without respect of either rank or extraction. All partiality and distinction must be utterly abolished, otherwise you expose yourself to hate and resentment. By enforcing your authority with judgment, and setting a proper example, you may render yourself at once both beloved and feared. Severity must be accompanied with great tenderness and moderation; so displayed upon every occasion as to appear void of all manner of design, and totally the effect of a natural disposition.

Great punishments are only to be inflicted for great crimes: but the more moderate they  
are

are in general, the more easy it will be to reform abuses, because all the world, concurring in the necessity of them, will chearfully promote their effect.

We have, for example, one very pernicious custom ; which is, that of punishing marauders with certain death, so that a man is frequently hanged for a single offence ; in consequence of which they are rarely discovered ; because every one is unwilling to occasion the death of a poor wretch, for only having been seeking perhaps to gratify his hunger.

If, instead of this method, we did but send them to the provost's, there to be chained like galley-slaves ; and condemned to subsist upon bread and water for one, two, or three months ; or to be employed upon some of those works which are always carrying on in an army ; and not to be restored to their regiments, till the night before an engagement, or till the commander in chief shall think proper : then all the world would join their endeavours to bring such delinquents to punishment : the officers upon grand guards and out-posts would not suffer one to escape ; by whose vigilance and activity the mischief would thus be soon put an entire stop to. Such as fall at present into the hands of justice, are very unfortunate indeed ; for the provost and his party, when they discover any marauders, immediately turn their eyes another way, in order to give them an opportunity to escape : but as the commander in chief is perpetually complaining of the outrages  
which

which are committed, they are obliged to apprehend one now and then, who falls a sacrifice for the rest. Thus the examples that are made have no tendency towards removing the evil, or restoring discipline; and hardly answer any other purpose, than to justify the common saying amongst the soldiers, “That none but the unfortunate are hanged.”—— Perhaps it may be observed, that the officers likewise suffer marauders to pass by their posts unnoticed. But that is an abuse which may be easily remedied, by discovering from the prisoners what particular posts they passed by, and imprisoning the officers who commanded them, during the remainder of the campaign. This will render them vigilant, careful, and severe: nevertheless, when a man is to be punished with certain death for the offence, there are but few of them who would not risk two or three months imprisonment, rather than be instrumental to it.

All other military punishments, when carried to extremes of severity, will be attended with the same consequences.——It is also very necessary to prevent those from being branded with the name of infamy, which should be regarded in a milder light; as the gantlope, for instance, which in France is reputed ignominious; but which, in the case of the soldier, deserves a different imputation, because it is a punishment which he receives from the hands of his comrades. The reason of its being thus extravagantly vilified, proceeds from the custom

from of inflicting it in common upon whores, rogues, and such offenders as fall within the province of the hangman ; the consequence of which is, that one is obliged to pass the colours over a soldier's head, after he has received this punishment, in order, by such an act of ceremony, to take off that idea of ignominy which is attached to it : A remedy worse than the evil, and which is also productive of a much greater : for after a man has run the gantlope, his captain immediately strips him, for fear he should desert, and then turns him out of the service ; by which means this punishment, how much soever necessary, is never inflicted but for capital crimes ; for when a soldier is confined for the commission of any trivial offence, the commanding officer always releases him, upon the application of his captain, because, forsooth, the loss of the man would be some deduction from his perquisites.

There are some things of great importance towards the promotion of discipline, that are, notwithstanding, altogether unattended to ; which, as well as the persons who practise them, are frequently laughed at and despised.—The French, for example, ridicule that law amongst the Germans, of not touching a dead horse : which is, nevertheless, a very sensible and good institution, if not carried too far. Pestilential diseases are, in a great measure, prevented by it ; for the soldiers frequently plunder dead carcases for their skins, and thereby expose themselves to infection. It does not prevent the

the killing and eating of horses during sieges, a scarcity of provisions, or other exigencies. Let us from hence, therefore, judge, whether it is not rather useful than otherwise.

The French also reproach the Germans for the bastinado, which is a military punishment established amongst them. If a German officer strikes, or otherwise abuses a private soldier, he is cashiered, upon complaint made by the party injured; and is also compelled, on pain of forfeiting his honour, to give him satisfaction, if he demands it, when he is no longer under his command. This obligation prevails alike through all ranks; and there are frequently instances of general officers giving satisfaction, at the point of the sword, to subalterns who have quitted the service; for there is no refusing to accept their challenge, without incurring ignominy.

The French do not at all scruple to strike a soldier with their hands; but they are hardly ever tempted to apply the stick, because that is a kind of chastisement which has been exploded, as inconsistent with that notion of liberty which prevails amongst them. Nevertheless prompt punishments are certainly necessary, provided they be such as are not accounted dishonourable.

Let us compare these different customs of the two nations together, and judge which contributes most to the good of the service, and the proper support of the point of honour. The punishments for their officers are likewise  
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of distinct kinds. The French upbraid the Germans with their provosts and their chains ; the latter retort the reproach, by exclaiming against the prisons and ropes of the French ; for the German officers are never confined in the public prisons. They have a provost to every regiment ; which post is always given to an old serjeant, in recompense for his service ; but I have never heard of their officers being put in irons, unless for great crimes, and after they had been first degraded.

These observations which I have been making, serve to demonstrate the absurdity of condemning particular customs or prejudices, before one has examined their original causes.

After having thus explained my ideas concerning the forming of troops, the manner in which they ought to engage, and lastly, concerning discipline, which, if I may use the expression, is the basis and foundation of the art of war ; I am to proceed now to the sublime branches. Few persons will perhaps understand me ; but I write for the connoisseurs, who, I hope, will not be offended at the confidence with which I deliver my opinions.

## B O O K II.

### Of the sublime branches of the art of war.

#### C H A P. I.

Of fortification, and the attack and defence of places.

**I** Am astonished that the present erroneous policy of fortifying towns, has not yet been laid aside. This opinion will probably appear extraordinary; and it is therefore necessary that I should justify it.

Let us, in the first place, examine the usefulness of fortresses. They serve to cover a country; they oblige an enemy to attack them, before he can penetrate further; they afford a safe retreat and cover to your own troops on all occasions; they contain magazines, and form a secure receptacle, in the winter-time, for artillery, ammunition, &c.

If these things are properly considered, we shall find it most prudent and advantageous to have them erected at the confluence of two rivers; because in such situations the enemy will be obliged to divide his army into three distinct corps, before he can be able to invest them, one of which may be repulsed and defeated,

feated, before it can be succoured by the others. Two sides of your fortrets will likewise remain always open, till the blockade is completed, which cannot possibly be done in a single day : neither can the necessary communication between the divisions of his army be preserved, without the use of three bridges, which will be exposed to the hazard of those sudden storms and inundations which usually happen in the season for action.—— Moreover, in being thus master of the rivers, you thereby obtain a command of the whole country. You may divert the course of the river, if occasion shall require it ; may be readily furnished with supplies of provisions ; may have magazines formed, and ammunition, or other sorts of military stores, transported to you with ease.

Where rivers are wanting, other situations may be found, so strongly fortified by nature, that it is next to an impossibility to invest them ; and which being accessible only in one place, may at a small expence be rendered in a manner impregnable ; for, in general, I look upon the works of nature to be infinitely stronger than those of art : what reason therefore can we plausibly assign for neglecting to make a proper use of them ? Few cities have been originally founded for the purpose of sustaining a regular siege ; but were indebted to trade for their extent, and to chance for their situation. In the course of time they increased, and the inhabitants surrounded them with walls for a defence against the incursions of their common

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enemies,

enemies, and a protection from those intestine disturbances, in which kingdoms are sometimes involved. These precautions were so far just and necessary; but what could be the inducement for princes to fortify them? Before Christianity became established in the world, and when vanquished provinces were laid waste and depopulated, such a proceeding might wear some appearance of reason; but now that war is carried on with more moderation and humanity, as being by those measures productive of more advantage to the conqueror, what can be said to justify it? A town surrounded with a strong wall, and a bulwark capable of holding three or four hundred men, besides the inhabitants, together with some pieces of cannon, will be in as much security, as if the garrison consisted of as many thousands; and I insist upon it, that the latter, notwithstanding their superiority in numbers, will neither make a longer defence, nor a more advantageous capitulation for the inhabitants, when they surrender: but what use, is it probable, the enemy will make of the place, after he has taken it? He will scarcely fortify it, but, as it appears to me, will rather content himself with a contribution, and march further. Perhaps, indeed, the opposition he may expect in taking it, and the difficulty of keeping it afterwards, may deter him altogether from laying siege to it; for he will be afraid to trust the possession of it to a small garrison, and unwilling to expose

pose a large one to the hazard of being made prisoners.

There is another more powerful reason to persuade me, that fortified cities are capable of making but a weak defence, which is, that notwithstanding a garrison is furnished with provisions for a three months siege, yet it is no sooner invested, than they find that there is hardly a sufficient quantity for eight days ; because no extraordinary allowance is made, in the calculation of numbers, for ten, twenty, or perhaps thirty thousand additional persons, who have abandoned the country for the security of themselves and their effects, to find refuge there. The riches of a prince are not sufficient to provide magazines for the support of a whole province, in every place that is in danger of being attacked, much less to supply the annual consumption of them ; for it would even exceed the boasted virtue of the *philosopher's stone* to do it, without creating a famine in his dominions. —Some may perhaps observe, that those who could not furnish their own provisions, ought to be expelled the garrison : but such an inhuman proceeding would be attended with more misery and distress, than even the arrival of the enemy ; for what multitudes are there in all cities, whose manner of livelihood would render them obnoxious to that treatment ? But suppose it nevertheless to be put in execution, is it probable, that when the enemy invests the place, he will suffer these wretches to retire where they please, and the garrison to avail it-  
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self of their banishment? So far from it, that he will undoubtedly turn them back again; and surely the governor will not suffer them to perish with hunger at the gates; neither can he be afterwards able to justify such conduct to his sovereign: he will therefore be reduced to the necessity of admitting them, and of course become incapable of holding out long. For suppose that his garrison consists of five thousand men; that he has provisions for three months; and that the number of inhabitants besides, amounts to thirty thousand; such an addition will consequently render one day's consumption of provisions equal to what six or seven were before, and the place not remain tenible for above twelve or fourteen days: but provided it holds out even twenty, the enemy has little or no trouble in carrying on the siege, because it must at length surrender of its own accord; and thus will all the millions which have been expended in fortifying it, be thrown away.

What I have been saying, appears to me sufficient to demonstrate the great defects of fortified cities; and that it is most advantageous for a sovereign, to erect fortresses in such situations as are strong by nature, and properly adapted to cover the country: after having done which, it will become a matter of prudence, if not to demolish the fortifications of his towns as far as to the ramparts, at least to relinquish all thoughts of strengthening them for the future, or of laying out such immense  
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sums of money to such useless and ineffectual purposes.

Notwithstanding what I have here advanced is founded upon sense and reason, yet I am conscious there is hardly a single person who will concur with me in opinion ; so prevailing and so absolute is custom. A place situated according to my plan, may be defended against an enemy for several months, or even years, provided it can be supplied with provisions, because it is free from that detriment and incumbrance, which is unavoidably occasioned by citizens.

The sieges in Brabant had not been carried on with such rapid success, if the governors had not calculated the duration of their defence by that of their provisions : on which account they were as impatient for the making of a sufficient breach as the enemy, that they might be thereby furnished with a decent opportunity of capitulating : yet, notwithstanding this mutual disposition of the two contending parties towards the accomplishment of the same end, I have seen several governors obliged to surrender, without having had the honour of marching out through the breach.

It has been a remark of mine at sieges, that the covert-way is crowded at night with men, and a great fire of small arms constantly made from thence, which does but very little execution, and fatigues the troops, even to a degree of abuse.— The soldier who has been firing all night, is naturally tired ; but as his firelock  
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must be out of order, that part of the ensuing day which he would be glad to appropriate to rest and refreshment, he is obliged to spend in cleaning and repairing it, and in making cartridges: A circumstance of infinite consequence, and which, unless attended to, will be productive of diseases, and a general dislike to the service.— It is towards the end of a siege, when every thing comes to be disputed by inches, that vigour and resolution are most wanted: at which time, the greater proofs you give of those, the more the enemy will be discouraged; for disorders will then begin to spread amongst them; forage and provisions will grow scarce, and all things seem to concur to their destruction. If, moreover, to add to their despondency, they perceive that your resistance is still stronger, and that it increases, when they expected it to diminish, they will be at a loss how to act, and give themselves totally up to despair.

It is for these reasons, that the best troops ought always to be reserved for desperate affairs only, and never suffered to expose themselves upon the ramparts, or to do sentinel's duty in the night-time; but to be sent to their quarters again, immediately after their return from any expedition on which they have been employed.

With regard to the fire which is made by the besieged from the covert-way and the ramparts upon the workmen during the night, it amounts to little more than so much noise:  
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for the soldiers, to avoid the trouble of ramming down their charge, take the powder by handfuls, pour it loose into the barrel, and put the ball in after it; and as, by constant firing, their shoulders are become painful to them, and the obscurity of the night likewise prevents the officers from seeing what they do, they only place the muzzles upon the palisades, and fire at random.

It is much better to raise, towards the close of the day, some barbette-batteries\*, either in the covert-way, or upon the ramparts, and draw a line with chalk, to direct their fire in the night-time towards the proper object, removing them again at break of day. These will do infinitely more execution than the small arms, because they will make way through gabions and fascines; the balls being as large as walnuts, will scour the whole breadth of the trenches, and by rolling and bounding *a ricochet*, will go far beyond the port of musketry: they will make dreadful havock amongst the workmen, and those who serve the batteries; neither will the enemy's cannon be able to dismount or silence them. Twelve pieces planted after this manner will require no more than thirty-six soldiers, and twelve cannoniers to work them; and, I am persua-

\* These batteries are raised about four feet higher than the terre-plein, so that the guns may be just high enough to fire over the parapet. The French have named them batteries *en barbe*, or *en barbette*, because the ball, in its passage out of the cannon, shaves, as it were, the grass from the upper talus of the parapet.

ded, will do more mischief than a thousand men posted in the covert-way. Besides, your troops are, during all this time, at rest, and will, the day after, be in condition to be employed on any kind of service.—— It may be objected, perhaps, that the consumption of powder will be very much increased by this method of firing; but the soldiers with their small arms waste more in the night-time, than they use; and if ammunition is scarce, the number of guns upon these batteries may be accordingly less. The advantages resulting from it will be very considerable, in that your troops will be exposed to less fatigue, and consequently be more free from disorders; for nothing occasions them so much as night-duties.

I shall make one observation in this place, which is, That all the ancient fortifications are absolutely good for nothing, and the modern ones are not much better, as shall be demonstrated at the end of the succeeding chapter.—— The King of Poland \* has formed an admirable plan of fortification; but as the present construction of places is founded upon a different system, and we are compelled to make use of them as they are, I shall therefore only endeavour to remedy their most glaring defects. And amongst many, that of all the out-works, for example, being scarped at the gorge, is far from being the least; in order to remedy which, it is necessary to contrive an easy communication with them, so as to have

\* Augustus II. the Marshal's father.

power, when they fall into the hands of the besiegers, to assail them sword in hand from behind ; for after they have made a lodgement in them, the number of men which they leave to keep possession is but small, because their covering party and pioneers are obliged to retire : if therefore you command access to them, and attack them afterwards with a superior force, you must undoubtedly dislodge them ; and before they can renew the assault, their lodgement will be destroyed. This you may be able to accomplish with safety, because you will not be exposed to any interruption from the fire of their batteries or trenches. They will thus be obliged to make a fresh attack, in which they must lose an infinite number of men, because it will be necessary for them to assail it with a large force. When they have again carried the work, and their parties are retired, you are to repeat your sally, and dispossess them as before. Nothing can be more destructive and discouraging to the besiegers, than this method of proceeding with them ; and the advantage, moreover, will remain always on your side.

All works that are scarped at the gorge, are irrecoverable, after once they have been carried, from the difficulty of their access, the security of the enemy, and the impracticableness of attacking them ; for as they have only a small passage, and frequently a stair-case, so narrow as to admit but one man at a time, the assailants from the garrison will be destroyed as

fast as they appear : they must of necessity, therefore, be totally abandoned, when once the enemy has got possession of them ; because to attempt to retake them afterwards, is only sacrificing the lives of your soldiers to no manner of purpose.

What I have been saying is sufficient to make it appear, that the besieged have no opportunities more favourable to them, for distressing the enemy, during the course of the siege, than those which are furnished by their own works, so long as they can keep up an easy communication with them.

Many people imagine, that when once a breach is made in a work, it must be abandoned, as being no longer tenible. It is certain indeed, that, in such a case, one can scarcely be able to prevent the enemy's making a lodgement therein ; but he may be driven out again, and so reduced to the necessity of making a fresh assault ; which he may, in like manner, be repeatedly obliged to do, because the besieged will always have the advantage in maintaining it, and must destroy vast numbers at every attack. The only effectual expedient the enemy can fall upon, is to blow it up ; which will probably not occur to him for some time, and until he has miscarried in every other attempt. But if, where the ditches are dry, the works are countermined in such a manner, as to have the gallery carried quite round them, he will not be able to avail himself of the mine, so long as the besieged remain

main in possession of them, because if he digs deeper than they have done, he must come to water.—Upon the whole, mines are productive of more dread than real mischief, and are generally discovered, and their effect prevented.

Large works are the most serviceable; for small ones are capable of but little use or resistance, because they are so soon ruined and destroyed. There is a very good way, in wet ditches, of retarding the construction of the gallery over them; which is, by having large boats covered with thick planks, and filling them with armed soldiers: it will be impossible that it can be carried on, so long as the workmen continue exposed to certain destruction from the party posted in these boats, which will always approach quite close to them before they fire. Being made musket-proof, the enemy's small arms will have no effect upon them; in consequence of which, they will be obliged to raise a battery at the salient angle of the ditch: but, after a few fires, that will cease to be formidable to them, as they can presently get under cover, and the cannon can do but very little mischief in plunging.—There are no practicable means of obstructing the passage of the ditch, but by the use of these boats, unless holes are made through the revetement, and guns planted behind it to scour the surface.

## C H A P. II.

*Reflections upon war in general.*

**A**S I take objects just as they occur to my imagination, so the reader must not be surpris'd at my quitting the subject of fortification in this place, to resume it in another; for it appeared to me necessary to make the following digression, before I entered into a more minute and circumstantial account of things.

Many persons are of opinion, that it is advantageous to take the field early; in which they judge very properly, provided there is any important post to be seized, or enterprise to be executed, which may require it: but otherwise I am far from concurring with them, and think there is no occasion for such precipitate measures; but, on the contrary, that it is even prudent to remain in winter-quarters much longer than the usual time. The enemy's being suffered to lay siege to a place is of no signification, because he will thereby only weaken and dispirit his troops; and if you fall upon him towards the autumn with an army well disciplined, and in good order, he must infallibly be ruined.

I have always remarked, that a single campaign reduces an army one third at least, and sometimes one half; and that the cavalry in particular is in so wretched a condition by the beginning

beginning of October, as to be no longer able to keep the field.

I would therefore continue in quarters till about that season of the year, harassing the enemy in the mean while with advanced parties and detachments, and, towards the end of a laborious siege, attack him with my whole force; at which time I should have considerably the advantage, and soon oblige him to make his retreat: but as even that would be difficult for him to execute in the presence of an army like mine, quite fresh and in vigour, he would probably be reduced to the necessity of abandoning his baggage, artillery, and some part of his cavalry; the loss of which would prevent his making so early an appearance in the field the ensuing year, and render him afraid perhaps, if not incapable, of doing it at all.

— This may be accomplished within the space of a single month; after which you return to quarters, with your troops in good order, as well as spirits; while those of the enemy are depressed, and ruined. It is moreover the time of harvest, when the barns will be full of grain: having therefore gained a superiority in the field, you may march into the enemy's country, and there subsist your army during the winter; which season of the year is far from being so destructive to troops as is generally imagined. I have made several winter-campaigns in very severe climates, when both the men and horses continued in better condition than in the summer: for those who

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are subject to no disorders, have no occasion to be particularly apprehensive about any on account of the time of year, unless it should be attended indeed with more than usual severity.

Such situations are to be found as will admit of cantonments for a whole army, and in which it may be very secure from being insulted by the enemy, provided the disposition is judiciously made, and a proper communication preserved between the posts. Provisions will not be wanted for present consumption, but some management is required in the method of procuring supplies for future exigencies. An experienced general, so far from maintaining the troops under his command at the expence of their sovereign, will, by raising contributions, secure their subsistence for the ensuing campaign ; so that, being well lodged, clothed, and supported, they will consequently be easy, contented, and happy. — In order to accomplish this, it will be necessary to fall upon a method of drawing supplies of provisions and money from remote parts of the country, but without fatiguing thereby the troops too much. Large detachments are exposed to the danger of being cut off by the enemy ; are likewise detrimental to the service, and rarely productive of those advantages which are expected from them. The best way is, to transmit to those places from which contributions are required, circular letters, threatening the inhabitants with military execution,



cution, on pain of their refusal to answer the demand made from them; which ought at the same time to be moderate, and proportionable to their several abilities: after which, intelligent officers must be selected, and detached with parties of twenty-five or thirty men, allotting to each a certain number of villages, and giving them strict orders to march by night only, and not to plunder, or commit any manner of outrage, on pain of death. — When they arrive at their appointed places, they must send a non-commissioned officer and two men in the evening to the chief magistrate, to know if he is prepared to take up his acquittance, which will be given under the hand and seal of the commander in chief of the army. If he answers in the negative, the commanding officer is not thereupon either to plunder the place, or to take the sum required; but must discover himself and his party, set fire to some detached house, and afterwards march away again, threatening at the same time to return, and burn the whole village.

All these parties are to be assembled at some rendezvous before they are dismissed, where a strict inquiry must be made into their conduct, and those who are found guilty of the least rapine be hanged without mercy. If any officers likewise are convicted of having taken or received money from the villages, they must be punished with death, or cashiered at least. But if, on the other hand, it appears,

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that they have properly executed their orders, they must be rewarded accordingly. This method of raising contributions will thus be soon rendered familiar to the troops, and all the places that have been summoned within a hundred leagues in circumference, will not fail to bring their stipulated quantities of provisions and money; for the calamities they have been threatened with in case of their delay, will augment their fears to such a degree, that they will be very glad to purchase their security by discharging the demand made upon them, notwithstanding any prohibitions which may have been issued by the enemy to the contrary.

Twenty parties detached monthly will be sufficient to accomplish the whole affair: neither will it be possible for the enemy to discover them, notwithstanding his most diligent endeavours for that purpose, provided they make use of the proper precautions on their march, and adhere to their instructions.

Large bodies of troops detached on these duties, encompass in the execution only a small tract of country, and spread distress in every place where they appear: the inhabitants conceal their cattle and effects from them, and can hardly be compelled to surrender up any thing; because they are very sensible, that their stay can be but short; and that as they take care to send the earliest intelligence of their situation to the enemy, he will soon relieve them; a circumstance by which such  
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large parties have frequently been obliged to retreat with all the expedition they could, after having totally miscarried in their undertaking, and left several of their men behind them: but, even when they meet with no interruption from the enemy, the commanding officers, either influenced by fear, necessity, or self-interest, generally enter into some composition with the inhabitants, and return with only a small part of what was demanded, and with the troops much harassed, and out of condition.

This is the usual consequence attending this method of raising contributions; while, on the other hand, that which I have been proposing cannot fail of success.

In order, moreover, to render the payment as easy as possible to the inhabitants, they must only be required to make it monthly, in such shares and proportions as the commander in chief shall appoint: in consequence of which indulgence, added to their apprehensions of having their habitations burnt, unless they comply therewith, they will assist one another, and be able to advance the whole with much less inconvenience and distress; those who are at the greatest distance disposing of their properties, in order to bring their respective contributions in money, and those which lie contiguous furnishing theirs in provisions.

These parties must either be very unfortunate indeed, or else very imprudently conducted, if they fall into the hands of the enemy;

because, with twenty-five or thirty men on foot, one may traverse a whole kingdom with security. When they find themselves discovered, they must immediately march off the ground; for the enemy will be deterred from pursuing them far, particularly in the night-time, by the apprehension of falling into an ambuscade; a circumstance which might very well come to pass, especially when several of the parties have agreed together upon certain places appointed to assemble at, in case of such accidents.

Nothing can be more entertaining than these incursions, and the soldiers themselves will certainly take pleasure in them.

This puts me in mind of my being attacked, in the year 1710\*, by a party of French, between Mechlin and Bruffels; three days after which, another, consisting of fifty men, entered Alost, which is five leagues from Bruffels, at noon-day, and carried off my baggage. I was likewise very near being taken prisoner myself, notwithstanding there were, at the very moment in which this happened, fifteen hundred men at the gate of the town waiting for their billets, that were making out at the magistrate's.

It was dangerous to go by water from Bruffels to Antwerp without a pass, or even to walk in the suburbs of any place, without the hazard of being carried off by the enemy. Al-

\* The Marshal was at that time a volunteer in the allied army.

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though it was now the depth of winter, and the allies were masters of all Flanders ; of Lisle, Tournay, Mons, Douay, Ghent, Bruges, Ostend, and all the barrier-towns, and had an hundred and fifty thousand men dispersed in these different garrisons ; nevertheless, the French partisans plundered the whole country ; an example which sufficiently proves the possibility of what I have been advancing in regard to parties, and at the same time confirms me in my opinion of the success that must infallibly attend them.

The princes that have made war in Poland would never have ruined their armies, if they had had recourse to this method of carrying it on. If Charles XII. had not entered Saxony, he must have been undone. Those who saw the Swedes at that time, will concur with me in the reality of this. If Gustavus Adolphus had taken possession of proper posts, and subsisted his army in the manner I propose, he might have supported himself in this kingdom during his whole life, and have even been able to augment his troops in it at the same time : Which persuasion of mine, has induced me to draw the following plan of operations for the use of any power that may be engaged in a future war with it.

*A description of Poland, together with a scheme for carrying on a war with that republic.*

Poland is an open and extensive country,  
without

without fortified towns, well peopled, and abounds in grain, cattle, and all the necessaries of life. It has plenty of wood, a number of large rivers, all which are navigable, and great sums of money. The air is wholesome ; it is entirely free from those disorders which are peculiar to other climates ; foreigners enjoy as good health in it as the natives ; and it is altogether adapted by nature for the seat and support of a war.

The Polanders make war in such a vague and irregular manner, that if an enemy makes a point of pursuing them, he will thereby be presently rendered incapable of opposing their continual inroads. It is much more prudent, therefore, not to pursue them at all, but to possess himself of certain posts upon the rivers, to fortify them, to erect barracks for his troops, and to raise contributions throughout the provinces, in the manner I have above recommended.

The whole kingdom united is not in a capacity to take a well-palissaded redoubt ; for it is furnished with no artillery, no ammunition, nor even any of the materials which are necessary for a siege : and it is, moreover, impossible that it can ever be otherwise, so long as the government remains upon its present establishment. The reality of this, is what no body that is at all acquainted with the matter, will dispute. But although they were even supplied with all kinds of warlike stores, they would not keep them for any continuance.

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As the country is very open, and the national troops belonging to it consist entirely of cavalry, all the powers which have made war upon it, have therefore imagined, that cavalry was the only proper force to be employed in it. This notion of theirs exposed them to the unavoidable necessity of perpetually changing their situation, in order to be able to subsist; and of frequently dividing their army, and detaching large parties to procure provisions; which the Polish horse, being extremely light, attacked upon their march, and although they did not defeat them, yet, by continuing to pursue them, and seizing every opportunity to repeat their insults, they consequently harassed them to a very great degree, and in the course of time ruined them. But in order to give an idea of their method of fighting, the following relation of two affairs, which happened during the last war between the Saxons and Polanders, will not be unseasonable.

In the year 1716, a part of Poland suddenly took up arms, in order to drive the Saxon troops out of the country, which were at that time dispersed about in different provinces. The crown or republican army, consisting of twenty thousand men, invested the village wherein the Queen's regiment of horse was quartered, which surrendered upon terms, without making any manner of defence, and was a few hours afterwards cut to pieces in cool blood. After this massacre, they attacked two regiments of dragoons, who, having  
had

had intelligence of it, were on their march to join the other Saxon troops: these, dreading the consequence of capitulating, from the treatment which had been shewn to the Queen's regiment, not only defended themselves with obstinacy, but totally defeated the whole Polish army, and took above twenty pairs of kettle-drums, together with great numbers of standards and colours. This action happened near a village called *Tornos*, between Cracow and Sendomir, under the conduct and command of M. de Clingenberg.

At the time when these affairs happened, I was on my march to Jarislaw in Lithuania, in order to assist in extinguishing the flame which was bursting out in that quarter; and having left a party of eighty horse at Jarislaw, to receive some contributions which were due from thence to the troops, the confederate Polanders invested the place, (which is a small town surrounded with a weak rampart), made three general assaults, and were repulsed at every one. At the expiration of fifteen days, the commanding officer of the party, whose name was *Heckman*, having consumed all his provisions, offered to treat about the surrender of the place; and, after a great many messages backwards and forwards, he was allowed to march out with all the honours of war, and a waggon, in which he had forty thousand crowns: An object very tempting to the Polanders, who nevertheless suffered him to pass; but, after two days march, detached eight hundred



dred horse in pursuit of him, who soon overtook him: these he engaged for six days, without discontinuing his march, and at length joined me near Warsaw, at the distance of a hundred leagues from Jarislaw, with his wagon that contained the money, sixty-eight of his men, and two pairs of kettle-drums which he had taken on his march, without ever suffering himself to be broken, and having only lost sixteen men during all his different engagements. This account may perhaps appear fabulous, but it is nevertheless totally genuine; and I could also produce several other of the like instances, but imagine these will be sufficient to furnish a proper idea of this people, and their method of fighting.

It becomes therefore no longer surprising, that those who have carried on war against the Poles, should be obliged to separate their troops, and to make continual, and very often forced marches, to be able to overtake them; and sometimes even to procure the necessary supplies of subsistence: all which is, notwithstanding, attended with nothing but loss and disappointment; for they are so extremely light, as frequently to march thirty, and sometimes forty miles in a day in large bodies; and, by the means of such expedition, fall upon you, before it can be possible for you to receive any intelligence of their approach, or be prepared to receive them.

The only effectual scheme for their reduction is, to avoid pursuing them, and to secure

those posts which are properly situated, from whence one may be able, by parties of infantry, to subject the whole country round about to contribution. As there is abundance of wood upon it, one may as well, if I may be allowed to make use of the expression, seek for a needle in a bottle of hay, as endeavour to find out these parties; and although they are discovered, the only consequence is their being exposed to the distant fire of small arms: but unless they enter the villages by day, and loiter away their time in drinking, it is almost certain, that they will perform their expedition without being even perceived.

The Polanders will soon abandon the country contiguous to these posts, induced thereto by this new and unusual method of carrying on the war against them, as well as by the extreme dread they naturally have of infantry; the fear of being surprised by which, will prevent their taking post in towns; an event they have no manner of occasion to be apprehensive of from cavalry, both because it is heavy and imbarassing in itself, and that it is impossible also for it to keep the field without being discovered by the priests, and others of the country-people, who would immediately afterwards carry the intelligence, with all the haste they could, to their own party; inso-much that you might take it for granted, that you would be constantly attended on your march by those who only waited for opportunities

nities of exposing you to difficulties, and picking up your stragglers.

The proper posts to be secured, are as follows. In the first place, the point of Werder, near Marienburg, where the river Vistula or Weisel divides its course; by the possession of which you become master of Polish Prussia; of Werder, a rich, plentiful, and well-peopled country; of Dantzick, Elbing, Marienburg, and Koningsburg, in your rear; all which are places that, in a manner, swarm with Germans; that abound with merchandise and artificers, and that will supply you with good recruits. Koningsburg and Dantzick are two port-towns, where great numbers of ships arrive from all parts of Europe, by means of which you may be easily furnished with officers, and all sorts of military stores, (the last of which are very scarce in Poland), and at the same time render the procuring of them very difficult to the enemy.

The natural situation of this post of which I am speaking, is vastly strong and well adapted for defence. The Weisel runs large in this part, and forms almost an island of it; for the fortress which should be built upon it, would be accessible only by a very narrow neck of land, two leagues in length; to make any attack by which, would be only throwing away a great many lives, without any manner of effect. Two small forts, one erected upon the right, and the other upon the left of the river, would render the investing of the place

in a manner impracticable to the Polanders; because it would be absolutely necessary for them to have three large bridges of communication; which is a piece of work far from being easy to execute, not only by them, but by any other power more capable.

These forts would soon be erected; for Poland is the best country in the world for the expeditious construction of fortifications: the soil is soft, and there is great plenty of firs, which are palisades ready made in a manner, little more being required than just to cut them down, and to plant them. They are in general a foot in diameter, and sometimes more, which will render them more difficult to be demolished by the enemy. The caserns being made of this wood, will be extremely wholesome and warm in winter; and as the walls of them are likewise to be composed of it, they may be raised in a very short space of time, and without expence; as may in like manner magazines, souterrains, &c. because hatchets will be the only instruments required, and the soldiers themselves will be capable enough to erect them, especially if superintended and directed by officers of some ingenuity.—But I shall take another opportunity to treat of the construction of these works.

I should leave 5000 men in this post, which would be a sufficient number to secure the possession of it; and from thence proceed ten leagues, where I would take post again upon the Weisel at Graudents. This is a small city,  
situated

situated on an eminence in a marsh five or six leagues in circumference, and the road to it is only by a causey, which must consequently render it a very tenible and strong post. Here I would station 1000 men; and then move into an island which is formed at the junction of the Bug with the Weisfel near Thorn, where I would erect a post for 5000 men. The situation of this place makes it of infinite importance; for the Bug is a large navigable river, upon which all the trade of Lower Lithuania is carried on.

From hence I would march to Janowiecz, leaving 1000 men there; and after that, to where the river Sonna falls into the Weisfel near Sendomir; erecting in this place a post to be occupied by 5000 men. The Sonna supports the commerce of a part of Polish Prussia, which is a considerable addition to the natural strength and advantage of this situation.

One thousand should be posted in an island lying between Sendomir and Cracow near Soles\*; five thousand in the city and castle of Cracow; one thousand at Zamoscie, upon the left of Sendomir; and five thousand at Limberg. At Bransaliteski, one thousand; the situation of which post renders it impregnable. Five thousand at Pintschow; one thousand at Zideswiloff; one thousand at Dolhinow, upon

\* This seems to be the Polanietz in the last Berlin map of Germany, and the Polaiez in that of Moll.

the river Wilia; five thousand at Kowno; which is an incomparable post, and as strong as any I have ever met with; it commands the two rivers that join contiguous to it, and which afterwards continue their course together, till they fall into the Curische-Haff. Six thousand must be also posted at Posnan in Great Poland.

The whole country would be so effectually covered by this disposition, that it must infallibly be reduced to the necessity of submitting patiently to the yoke; and the number of troops, moreover, required to form it, amounts to no more than 48,000 foot, besides 3800 horse. Two campaigns would be sufficient to complete this conquest; neither would it be attended with any manner of expence to the conqueror, because he might raise large contributions, which, by demanding only small sums from individuals, would be paid without distressing the country. A calculation has been made, that the payment of a timpre (which amounts to fifteen pence in French money) for every tun of beer that is consumed in Poland, would produce a fund sufficient for the support of 350,000 men; from which one may form an idea of the greatness of this kingdom, and the number of its inhabitants.

I am moreover persuaded, that this conquest might be made, without even fighting a single battle: for the troops, instead of being continually engaged in pursuits and marches, should be employed in fortifying and improving the  
works

works of their respective posts: and there being, as I have before observed, great abundance of wood in every part of the country, one might erect such works as would surpass the best reveted places in strength. After having therefore once established these posts, which I can foresee no sufficient obstacle to prevent, I should despise the combined force of Poland, and likewise that of all such other powers as might undertake to relieve it. By the command of the rivers, I should be enabled to furnish my posts occasionally with provisions; and an enemy would hardly penetrate into the country, and leave them behind him; because he would thereby expose himself to great inconveniencies. From whence could he procure the necessary supplies of all kinds, for the service of the war, and the subsistence of his army? The interior part of the country could not possibly support him long; which having soon exhausted, he would consequently be thereby obliged to change his situation. But what course must he take, or which way turn his arms, unless it be to lay siege in form to these forts, the reduction of which nature and art have conspired to render impracticable?

In short, neither the Tartars nor Turks would be capable of preventing the conquest of the kingdom under these circumstances; for it would require all the forces and wealth of France, England, and Holland, united. The Turks are the richest neighbours of Poland;  
but

but they are notwithstanding less formidable than the Russians.

Although I have said, that forty-eight thousand men would be a sufficient force to subdue all Poland; nevertheless, what is there to prevent my having an hundred thousand, if necessary, after I have once established myself? Is not the country both able to furnish, and to support such an augmentation? Or, must it be objected against, because it will be composed of Poles only, as if by nature one man was not as good as another? It is discipline and skill which alone constitute precedence in armies; and those who imagine, as I have before observed, that the Roman legions consisted entirely of Roman citizens, are much mistaken in their opinion, because they were recruited from all nations. One and the same discipline was ordained for the whole; which being good in itself, consequently rendered the troops so, that had been inured to the practice of it; and that more especially, when they were conducted by men of abilities.

Troops may be raised in Poland with as much facility as contributions, nothing more being required than to demand a man *per* parish or village: but as soon as they are delivered, the marks of the particular centuries to which they are severally appointed, must be fixed upon them, that they may be readily known upon occasion. This will be the means of preventing their desertion, because neither their own parishes, nor any other places will be



be able to afford them security : but in order to mitigate the evil to which they are thus exposed, let their time of service be limited ; in which case, one ought to abide by the agreement made with them.

In time of war, it will be impolitic to enter into any kind of conference with the inhabitants ; for the sole view on their side will be to trifle with you, to deceive you, and to free their country from contribution. The true secret to subdue them, is, to listen to no overtures from them ; and, above all things, to avoid accepting of their troops, which are good for nothing but to imbarrafs you, and will be subject to all sorts of irregularities in their quarters. At first, tempted by the prospect of advantage, they will offer their service to you in crouds ; but as soon as they perceive themselves disappointed in their expectations, they will throw off the mask, and so leave you to repent the having furnished them with means of plundering their own country ; which they are always ready to do, without the least remorse or reluctance.—But you, moreover, become necessary, in a manner, to your own destruction, by consenting to incorporate them in your army : for when it comes to action, they will soon turn their backs, and, leaving intervals in the ranks, will thereby unavoidably disorder your own troops ; instances of which kind we have but too frequently experienced.

With regard to artillery, it is necessary to be furnished with a large stock of iron six-  
T
pounders,

pounders, which in Sweden are good, in great quantities, and very cheap : the carriages for them may be also made there, and the whole, when completed, be from thence transported upon the Weisel to the different forts.

After having erected these posts in the situations already described, it will be no difficult task to bring the inhabitants to your own terms, because you will have it in your power to put a stop to all manner of communication and intercourse between them. You may threaten them with confiscation of their lands, unless they surrender themselves up within such a limited space of time ; which, together with any other methods that may be made use of to accelerate their reduction, cannot fail of the desired effect ; for finding themselves surrounded, and exposed to distress from all quarters, they will be very ready to submit. You can therefore offer what terms of accommodation you please ; can impose your own laws, and see them carried into execution.

Thus I have made it appear, how practicable it is to subdue this republic in two or three campaigns at most, with a small army, and at a trifling expence ; and possibly the situation of affairs may one time or another render such a project necessary.

But I do not intend to leave this subject, without returning to that of fortification, and describing the method I most approve of for the construction of these posts. My system is founded upon that of the King of Poland's, which

which appears to me preferable to all others; and is certainly particularly well calculated for this country, which, as I have already more than once remarked, has great plenty of wood; add to which, that such fortifications will be attended with no expence in erecting, may be secured from the insults of an enemy in a few days, and in a month rendered capable of sustaining a long siege.

In treating upon the succeeding subject, I shall adhere to the rule that I have prescribed for myself in the course of this work; which is, first to expose the errors and defects of the present practice, before I recommend any change or innovation in it.

Although we excel the ancients in fortifications, yet we are far from having arrived at that perfection, which this branch of the military art will admit of.—With regard to myself, I am not so vain as to think that I am possessed of any uncommon share of knowledge in it: nevertheless I am not to be imposed upon by the exalted names of Mess. *de Vauban* and *Coeborn*, who have consumed immense sums in the fortifying of places, without having made any addition to their strength; at least, any that was material, or proportioned to what might have been expected, as is evident from the circumstance of their being taken with so much ease and expedition.

We have modern engineers, so obscure in themselves as scarcely to be known, who have notwithstanding profited by the errors of those

two mighty masters, and are infinitely superior to them; but who at the same time only hold the medium, as it were, between the deficiency of their practice, and that point of perfection which one should endeavour to arrive at.

Without entering into a miserable detail of all the little works which they have invented, I shall at once discover the capital defect of their system.

They have erected their fortifications in a kind of amphitheatre, in order to be able to fire from every part of them, as if the besieged could make use of a retired work, so long as their own troops occupied another immediately before it. To what purpose therefore are they raised so high? the consequence of which is, that being thereby so much exposed, the enemy destroys them as soon as he has finished his second parallel, and erected his batteries: a day or two are sufficient to do it. Thus then are all your defences ruined; your cannon is dismounted, and this boasted fortification rendered incapable of obstructing the besiegers; for their batteries being low, and firing at an elevation from the horizon, must raze and demolish every thing. As the besieged are therefore discouraged, and afraid to shew themselves, the enemy carries on his approaches very fast, and soon arrives upon the glacis. At the covert-way he perhaps meets with some difficulty and obstruction; but, as it is only defended by works that have been already much damaged, he soon renders himself master of it,

it, makes lodgements, and raises batteries in it, which totally ruin the defences of the place. If there are any low flanks, batteries are erected upon the salient angles of the ditch, because that being parallel with those flanks, and they moreover very narrow and confined in front, they are presently destroyed. Where there are casemates likewise, they are stopped up, and the embrasures are in a short time ruined by the artillery. Thus the besieged are no longer in a capacity to prevent the enemy's passage over the ditch.—With regard to a breach, it is soon made in a work, let it be ever so high or formidable ; after which the besieged have little more to do, than to withdraw their troops, and to give it up ; for as it is scarped at the gorge, and has only a staircase, or narrow passage into it, it is impracticable to attack it again, when once taken ; and this difficulty of access, at the same time that it renders it irrecoverable to them, serves to fortify and secure the besiegers in it ; the party sent to possess themselves of it is but small, because the enemy knows it must be abandoned ; and as the defences behind it are levelled and destroyed, they lodge themselves in it without any opposition or loss ; instead of which, if the communication between it and the main body of the place was easy, he would be obliged to send a very large force, to make a considerable lodgement, and to sustain a great many assaults in the maintaining of it, which would be attended

tended with the destruction of great numbers of his troops.

These defects having been in part discovered, the grazing fire \* was introduced, in order to remedy them; but the original imperfection of this plan of construction is such, that the inconvenience must always subsist: for if from the body of the place you see into the country, and upon the glacis, over your advanced works, the enemy must consequently command as good a view of you, if not a better; and although he does not ruin all your defences there, yet he at least prevents your being able to make use of them; which it is moreover impossible for you to do, without destroying your own troops, so long as you have any in the out-works before them. To what purpose is it therefore, to have a prospect upon the glacis from the body of the place, since it can be serviceable in no other respect, than to defend those works which are immediately before it? for while you remain in possession of the out-works, you are prevented, as I have just above observed, from firing upon the glacis; during which time, the enemy has the advantage of playing his batteries from thence, to level both your detached defences, and those of the main body of the place.— If, on the other hand, its fortifications were lower, the besiegers, in order to destroy them, would be obliged to erect fresh batteries against every distinct work, which would prove no

\* See plate 8. fig. 19.

easy task in the execution ; especially if the works were less spacious in proportion as they were further advanced towards the country ; and constructed in such a manner as to have communications by which they might be easily attacked again, after they have been carried by the enemy. But in order to convey a more perfect idea of my proposed method of fortification, I have annexed a \* plan and profile of it, to which I shall refer the reader. The erecting of an entire fort, is no more than a month's employment for one legion, as will appear by the calculation that is made in the succeeding part of this chapter.

When the enemy attacks me, he will, as usual, carry my covert-way, and destroy the defences of my counter-guard and lunettes ; yet as long as I have my casemates free in the re-entering angle of my counter-guards, how will he be able to pass the ditch, in order to assault them ? Perhaps it may be answered, that his batteries will destroy them : but that is far from being so easy to accomplish as might be imagined ; for he will not be able to plant above two or three pieces of cannon upon the salient angle of the counter-scarp ; and, in carrying on his approaches against the batteries of my casemates, he must sustain a continual fire of an hundred, from the bottom of the ditch, and the salient angles of my counter-guards and lunettes : will it be therefore practicable for him, exposed both night and day to so

\* See plate 6. fig. 20. and plate 8. fig. 21.

dreadful a fire, which it will moreover be impossible for him to put a stop to, to erect his gallery over the ditch ?

It is a maxim in engineering, That one cannot command any situation without being at the same time commanded by it ; which principle has been hitherto strictly adhered to ; without reflecting, that the business is, to oblige the enemy to expose himself in places where there is but little ground to occupy ; where he can be overlooked by a larger front than he is able to withstand ; and where it is moreover impracticable for him to erect any batteries in his defence.

All this I am enabled to accomplish by means of my open casemates ; for I command the ditch, and there is no possibility of his raising a battery to play upon, or dismount either those which are thus planted upon the surface of the water, or those of my ravelins, because they are covered by my counter-guard. I can moreover repair in the night-time all the damage that may have been done to my casemates ; and in case they are blocked up with rubbish, my cannon itself will be sufficient to open a way through it.

As the passage of the ditch is by these means rendered impracticable to the enemy, his only resource is to fill it up ; but I shall likewise presently destroy that work, as well as any batteries which he may have raised upon the salient angles of the ditch.

These floating batteries of mine, represented



ed in plate 2. fig. 22. are capable of very great use, and fire with prodigious exactness. It is hardly possible to lose a single man in serving them, otherwise than by accident; and the guns being under cover, are consequently pointed with attention and care.

The peculiar method of constructing these casemates \* is such, that they are infinitely more difficult to ruin than the arched kind, because that the cannon can only affect the first and second beam; that the others, which it cannot reach, always support the terre-plein; and that the length of them, in proportion to the breadth of the embrasure, is such, that those which are cut bear the weight of the earth; because this weight, which rests upon the two ends, prevents their bending either in the centre, or the place where they are cut; whereas, with regard to the arched casemates, one has nothing to do but to fire at the key-stone, and the whole must presently fall to ruin.

I have moreover invented a method to prevent the enemy from being able to see the cannon of my batteries, till the moment in which they are fired; a figure of which is represented in plate 6. fig. 23. Two or three men to a gun are sufficient, who are at the same time sheltered from the artillery and ricochet-firing of the besiegers by means of my traverses. They will be of great use in the covert-way, to

\* See plate 5. fig. 24. & 25.

ruin their batteries in the day-time, and, during the night, to fire grape-shot at the head of their approaches. With each of these guns I also plant ten amusettes, to keep up a continual discharge into the embrasures of their batteries; which, as they will pierce, at the distance of 1000 paces, all the mantlets and blinds in their way, will, I am persuaded, render it at least extremely difficult, if not impossible, for the enemy to serve their cannon.

But let us suppose that the besiegers have passed the first ditch, and made a lodgement upon the counter-guard; he will there, all of a sudden, discover a vast number of guns planted *en barbette*, which will fire upon him on every side, in a situation where it will be impossible for him to erect batteries to defend himself, and where he will be exposed to the defences of my ravelins, which as yet will not have sustained the least damage. In what manner therefore can he avail himself of the possession of this work? For, having only a foot or two of earth above the beams, and being likewise overlooked by two large faces, he will never attempt to bring any artillery into it. Will he plant two pieces of cannon upon the salient angle of the counter-guard, to dismount forty-four that are upon my two faces, together with the 440 amusettes, which command him, and force a passage through all gabions, sand-bags, and blinds, that are opposed against them? Where then will he be able to raise his battery? for the passage of the ditch will  
remain

remain impracticable to him, till he has first made himself master of my casemates. Perhaps it may be observed, that, by setting the miner to them, they may be ruined : but it will be found otherwise in the execution. The only expedients therefore which seem to remain, are, either to set fire to them, or to destroy the piles under water ; both which are equally as impossible.

But even suppose that he has made himself master of my casemates, I shall soon demolish them with my floating batteries : he will then have only a part of the parapet remaining ; and in order to raise batteries, he will be reduced to the necessity of bringing earth from a great distance for their foundation, which is a work that must be attended with no small difficulty and inconvenience. — Nevertheless, let us even suppose him to have surmounted it ; for assiduity and time, according to the proverb, will accomplish every thing : yet I insist upon it, that he will be obliged to fill up the front of two entire polygons, and the ditch of the counter-guard, (for which even the total demolition of it will not furnish sufficient materials), before he can be able to erect his batteries ; from which one may form a judgment of the difficulty that must attend the construction of them : and after having accomplished all this, how can he pass the ditch, in order to attack my ravelins ? for my guns, which he will never be able to dismount, scour the salient angle. — But suppose that he has even

succeeded so far as to have made a lodgement in one of these ravelins, how will he maintain himself in it? He will find himself all at once quite open and exposed to the fire of an entire polygon; in the ditch before which I can likewise post three or four battalions, sword-in-hand, which it will be impracticable for him to oppose with an equal number, or even with two battalions, let his lodgement be ever so advantageously effected; which battalions will moreover be obliged to enter by files through the breach, and must be destroyed as fast as they advance by four or five pieces of cannon loaded with grape-shot, that scour the passage from the adjacent flank. I shall be under no apprehensions concerning the success of my sallies; for, provided they are repulsed, they may retire to the foot of the body of the place, where all my troops will be secure under arms, and from whence the enemy will be exposed to a very severe fire.

I have always had in my head the idea of a certain work, that was taken and retaken at the siege of Candia thirty-six different times, and which cost the Turks above 25,000 men; a circumstance that has given me a great opinion of such works, whose construction will admit of their being attacked, and recovered, after they have been lost. There are no opportunities, during the course of a siege, more favourable to the besieged for engaging the enemy, and retarding his approaches, than those which are furnished by works of this kind; because the  
former

former are exposed to no danger from without, at the same time that the latter is always obliged to enter by the breach; and if he brings any cannon into them, he is sure to lose them.

In short, I am inclined to think, that the attack of a fort constructed upon this principle, would not a little diminish that rage for sieges which prevails at present.—One should at all times endeavour to have a wet ditch, if possible, to prevent the enemy from being able to make his passage by the sap, or in any other manner than by galleries erected over it.

This \* fort will contain 10,000 men at least, and one legion is more than sufficient to defend it. The time required for the erecting of it, may be seen in the calculation which follows. My casemates will not take up much, because they are only built with beams cut all in one piece; but even although two months are consumed upon it, and 8 or 10,000 men at the same time employed, the labour attending its construction will, nevertheless, be amply repaid by the strength and importance of it.

All the faces must be reveted or lined with quicksets, which will support the earth prodigiously, and render it unnecessary to allow

\* The building of this kind of fort is not practicable, but in places abounding with wood: but it may be erected upon the same system without wood, provided the construction of the counter-guard is such, that the enemy will not be able to make a lodgement in it: a strong brick wall, with scaffolds raised behind it, will be sufficient for a counter-guard.

much talus to the works ; for the thorns being planted in rows, and their roots branching out and penetrating as far as the terre-plein, consolidate them, like a terrafs, to fuch a degree, and fo effectually break the force of a ball, that I may venture to pronounce it impoffible to make a breach in them.

It is likewise very difficult to efcalade, or furprife a work thus defended, efpecially if the berm is well palifaded and fraifed. The fountains will hold the troops, cattle, provisions, and all fuch other neceffaries as regard the fubfiftence and fervice of an army. If to thefe advantages of art, we join thofe which nature affords us in certain fituations, one may eafily conceive how practicable it is to erect forts of the greateft ftrength, efpecially when we add out-works to them ; for the larger and more extenfive places are, the more troops will confequently be required to befiege them ; fuch, for inftance, as are Lifle, Bruffels, Metz, &c. which demand armies of 100,000 men to inveft them : but then great numbers are neceffary, in like proportion, to defend them.

I have contrived a method, capable of remedying that defect and inconvenience peculiar to fmall places, of being invefted by fmall numbers, which will render the fiege of one of my forts impracticable with lefs than 100,000 men. This is by advanced towers, which are infinitely fuperior to redoubts, that a great many make ufe of only to extend and enlarge a place ; and that are foon carried by  
the

the enemy, unless one chuses to risk the loss of both artillery and troops in maintaining them: their defence, moreover, requires great numbers of men, which must very much fatigue and weaken your garrison.

I place these towers 2000 paces from my fort, because I shall be able, at that distance, to batter them with my cannon, after they have fallen into the hands of the enemy. They are to be built of brick, and in such a manner as only to have a single wall on the interior side; by which I mean to divide the circumference by its diameter, making the half of that side which looks towards the country, solid, and leaving the opposite side hollow, as may be seen in the figure \*. The distance from the centre of the body of the place to these towers, forms a radius of 3000 paces; the circle will therefore of course amount in circumference to 18,000 and some odd: so that in erecting the towers 500 paces asunder, (a communication between which must be also made by a good ditch), it will require thirty-six to encompass the whole. Nothing can possibly pass between any two of them, without being exposed to the fire of both; and although the enemy throws up lines to cover his passage, he will still be commanded by them; so that he will be reduced to the necessity of erecting batteries, and opening trenches, in order to destroy them by regular siege. Upon every one I shall plant four or five of my machines, call-

\* See plate 2. fig. 26.

ed *amusettes*, which will make great havock amongst the enemy, if within their reach, and thereby prevent his incamping at any distance less than 4000 paces; which radius being added to that of my works, produces a diameter of 14,000, and consequently a circumference of 42,000. Supposing then a single battalion or squadron to take up 100 paces, it will require 420 to occupy the circumvallation, and an equal number for the countervallation; which together will amount to 840. This is prodigious, when we, moreover, consider the defence which these lines will require; for it may be readily conceived such works would not be carried on without molestation.

It should not be imagined, that these towers may be easily demolished by barbette-firing; for the only effectual method is, to lay regular siege to them: and it is likewise far from being impossible, that a battery of twenty-four pounders may fire for eight days successively against one of them, without having ruined it. I have frequently seen brick towers, hollow, and very weakly constructed, that have sustained the fire of twenty pieces of large cannon for three or four entire days together, and that at the distance of 400 paces only, without having been destroyed: but these being filled, and quite solid as far as the centre, are infinitely stronger; and if the enemy advances his batteries too near, he exposes himself to be plunged into: he will therefore be obliged to fire at a great distance, and consequently be incapable



pable of doing much damage ; notwithstanding which, ten of these towers at least must be ruined, before he can carry his approaches so far as to render a single assault practicable.—

Let us next consider what an immense work it will be necessary for him to throw up, such, namely, as a retrenchment of eight leagues ; and what a prodigious number of troops he will require to block up the place : all his posts must be constantly well defended ; he must have an army of observation likewise : nevertheless it will be dangerous for him to divide his forces, and to leave the siege to be carried on by a part only ; for if the intervals between his battalions are suffered to be too large, the place will be thereby left open, and supplies of every kind thrown in as often as they are wanted.—Add to this, that the entire expence attending the construction of all these towers together, will not amount to so much as that of a single bastion or horn-work.

Perhaps it may be proposed to set the miner to these towers ; but that will be prevented by my patroles, which are perpetually to be going round the works, as well as by various other means : if he covers himself with mantlets, the amusettes will force an easy passage through them ; with which I have pierced large oaks, above eighteen inches in diameter, at the distance of 1000 paces.

These advanced towers will also answer the purpose of a retrenched incampment, affording shelter to an army upon occasion : they require

quire but very small numbers to defend them; one officer, and eight or ten men, furnished with amusettes, being a sufficient complement for each.

I here finish the subject of fortification, which I might have insisted upon much longer, and have spoken of various machines, and dangerous inventions, but that I think there are already too many for the destruction of mankind.

*A calculation of the time necessary for 4800 men to erect a fort according to my plan.*

*To form the parapets and banquettes.*

The first part. The excavation of the ditch.

	Tois.	Feet.	Inch.	
Length,	72	0	0	} 288 0 0
Breadth,	3	0	0	
Depth,	1	2	0	

The second part. The excavation of the ditch. } 581 2 0

Length,	44	0	0	} 293 2 0
Breadth,	5	0	0	
Depth,	1	2	0	

I suppose 600 men to be here employed, 400 of which are to dig and clear the ditch, and the remaining 200 to form the parapets and banquettes, and to trim and ram the earth. Every workman will be able to clear a cubical  
toise

toise of earth in a day of ten hours; the 400, therefore, in fifteen hours, will at least clear a ditch in the front of a polygon, containing 581 toises, two cubical feet; and the other 200 will form the work: consequently 4800 will finish the eight polygons of the fort in the same space of time.

*To form the ravelins.*

The first part. Excavation of the ditch.

	Tois.	Feet.	Inch.		
Length,	72	0	0	}	288 0 0
Breadth,	3	0	0		
Depth,	1	2	0		
The second part.					}
Length,	122	0	0	}	
Breadth,	5	0	0		
Depth,	1	4	0		
					1304 4 0

Four hundred workmen and two hundred trimmers will form one ravelin, according to the above calculation, in thirty hours and a half; so that 4800 will consequently form the eight ravelins belonging to the fort in the same time.

*To form the counter-guard.*

Length,	122	0	0	}	1016 4 0
Breadth,	5	0	0		
Depth,	1	4	0		

Four hundred workmen will clear the front  
X 2 of

of one polygon in twenty-five hours, and 200 will trim and form the work ; 4800 will therefore require no more to finish the eight polygons.

*To form the lunettes, the covert-way, and the glacis.*

The first part.				Excavation of the ditch.			
Length,	136	0	0	}	1586	4	0
Breadth,	7	0	0				
Depth,	1	4	0				
The second part.				}	275	0	0
Length,	55	0	0				
Breadth,	3	0	0				
Depth,	1	4	0	}	1921	4	0
The third part.							
Length,	18	0	0	}	60	0	0
Breadth,	2	0	0				
Depth,	1	4	0				

Forty hours and three quarters are sufficient for 400 workmen, for the front of one polygon : 4800 will therefore make the lunettes, covert-way, and glacis of eight polygons, in the same space of time.

According to the above calculation, 4800 men will be able to finish one polygon in fourteen hours and a half, and consequently the entire fort in eleven or twelve days, allowing ten hours to each.

Though

Though these calculations may be just, yet they must not be altogether depended upon in the execution ; for I only made them, in order to convey an idea of the practicability of my plan ; but by adding double or triple the same time, they will infallibly answer.

The best method of employing the workmen, is by dividing them into four reliefs ; by which means the work will be carried on briskly, and the troops at the same time not be fatigued. Every soldier having only three hours labour in the day, will both perform his task chearfully and with more diligence : but then it must be accompanied with the sound of the drum, and other warlike instruments in cadence. Lyfander, with a detachment of 3000 Lacedæmonians, destroyed the port of Piræus in Athens, to the sound of the flute, in the space of six hours. We have still some small remains of this custom amongst us ; and but a few years have elapsed, since the galley-slaves at Marseilles worked in cadence, and to the sound of the timbrel.

The workmen must throw out the earth as much as possible, from step to step, with their shovels ; for wheel-barrows are attended with a great many inconveniencies. They are not only expensive and troublesome in conveyance, but occasion delay and interruption in the carrying on of the works. A soldier may easily throw out a shovelful of earth from the depth of eight feet. And when the ditch is so much deeper, as to render that impracticable, the  
earth

earth must be removed in baskets. The pioneers, in digging the ditch, must leave banquettes or steps for the labourers to rest themselves upon, during the time their baskets are filling; after which they are to carry them away to the places in which they are directed to empty them. They are to be about three feet deep, and narrow at the bottom, so as to contain two cubical feet of earth; which will amount to very little more than 150 pounds in weight. This method of carriage is less fatiguing than that with wheel-barrows, although their load is not above half as heavy: and as the form, moreover, of the basket resembles that of a cone reversed, the soldier has no other trouble in emptying it, than just to lean a little sidewise. But all this work, as I have already observed, is to be performed in cadence, and to the sound of some instrument.

It is absolutely necessary to inure soldiers to labour; for if we examine the Roman history, we shall find that republic looked upon ease and indolence as their most formidable enemies. The consuls prepared their legions for battle no otherwise than by rendering them indefatigable; and rather than suffer them to be at any time inactive, they employed them on works that were even useless and unnecessary. Continual exercise makes good soldiers, because it qualifies them for martial enterprises; and by being habituated to pain, they insensibly learn to despise danger. The transition from fatigue to rest enervates them :

it presents objects of comparison, which are difficult to reconcile, in so effectual a manner as to prevent idleness, that passion so predominant amongst mankind, from gaining the ascendant over them; from inciting them to murmur at every trifling inconvenience; and from softening their souls, after having emaculated their bodies.

### C H A P. III.

#### *Of war in mountainous countries.*

There is but little to be said upon the subject of this chapter. The conduct of a war in mountainous countries requires a great deal of skill and circumspection. The passage of defiles must never be hazarded, till the eminences have been first taken possession of. This precaution will prevent ambuscades, and secure the troops, which would otherwise be unnecessarily exposed to the danger of being either totally destroyed, or obliged to retreat, after having sustained some considerable loss. If the passes, as well as the eminences, are occupied by the enemy, one must have recourse to stratagem, and make a faint attempt to force them, in order to engage his attention, and thereby procure an opportunity of discovering some other road: for however rough and impracticable mountains may at first sight appear, passes are nevertheless to be always found,

found, in being diligently fought for. The inhabitants themselves may perhaps be ignorant of them, because necessity never obliged them to look for any. One must therefore never give credit to their intelligence upon such occasions; for, in general, they have no other authority but tradition, for the principal part of what they know concerning their own country. I have very often experienced their ignorance, and the falsity of their informations; for which reason, it is necessary either to reconnoitre the ground one's self, or to employ those who are not afraid of encountering difficulties. By industrious examination, one is always sure to succeed; and, after having discovered passes which the enemy is unacquainted with, he will be at a loss what measures to take; and, finding that his projects have miscarried, will, in the next place, think of providing for his security by flight.

#### C H A P. IV.

##### *Of war in inclosed countries.*

**A**S, in situations of this kind, an enemy must be equally as imbarraſſed as one's self, there is therefore no great danger to be apprehended from him. The engagements which happen in them not being general, are never decisive, and usually terminate in favour of the most obstinate. But there is one essential



essential thing to be observed with regard to them ; which is, that one's rear must be always kept free, in order to be able either to make detachments, or, in case of necessity, to retreat. A vast deal depends upon the disposition of artillery in actions of this kind ; for as the enemy will be afraid to quit his posts, batteries that have been judiciously erected must do great execution : and although he abandons them, yet, as retreats are usually attended with difficulties, he may probably become thereby exposed to at least as much danger. But as I have already observed, these affairs are never decisive ; and as they are to be governed by the nature of the situations in which they happen, no particular rules can therefore be given in regard to them. Nevertheless, it must be laid down as one invariable maxim on all marches, to have parties, consisting of 100 men, always advanced in front, and upon the flanks, which must be sustained by others of double the same force, and these again by treble the same, in order to be effectually guarded against all attempts whatsoever of the enemy.

A detachment of 600 men may stop a whole army : for if, upon causeys bordered by hedges or ditches, such as are in Italy, and all wet countries, they present a large front to the enemy, he will naturally form his opinion of their strength by their appearance, and imagine their numbers much superior to what they really are. Upon emergencies, every little

hut is suddenly converted into a fortification, and frequently maintained with great obstinacy; which gains time to reconnoitre, and to form a disposition; for, in countries of this kind, one cannot be too cautious in preventing surprises.

A partisan of enterprise and spirit, with 3 or 400 men, will find means to attack an army on its march, and to occasion a great deal of disorder and inconvenience. If he seizes an opportunity, at the close of the day, to cut off your baggage, he will be able to carry away a considerable part of it, without exposing himself to much danger; because, if he retreats between two passes, and makes a vigorous opposition in his rear, he will thereby check your pursuit: in case he is hard pressed, he can march all along by the side of the carriages, and the first house he finds, he will there oblige you to make a sudden halt; during which time, the baggage that he has taken from you is moving on apace. A stratagem of this nature, practised upon your cavalry, must be attended with dreadful confusion.

It is for these reasons therefore that advanced parties ought to cover all the avenues of your march; but they must never be too weak in numbers; for unless they are sufficient to oppose any attack, nothing less than ruin and disgrace can be the consequence; as your adversary, if he is a person of some understanding, will find no difficulty to procure persons in his army ready to undertake any enterprise,  
and

and capable of improving every opportunity to their advantage.

## C H A P. V.

*Of passing rivers.*

**I**T is far from being so easy as may be imagined to prevent an enemy from passing a river; and it is moreover what he will be able to do with less difficulty in his advance to attack you, than he will in his retreat. In the former of these cases, he shews his front, which is at the same time supported by a proper disposition, and a large fire of artillery: in the latter, he exposes his rear, which it is always very dangerous to do; but the more so here, because that he is in a hurry; that this sort of disposition is never made with so much care as that which precedes the action; and that all men in a retreat contract a degree of fear, which in a manner reduces them to the state of being half defeated; a circumstance that is difficult to be otherwise accounted for, than by being ascribed to the natural imbecillity of the human heart.

One method of passing rivers is with a flank presented to the enemy; which is what Prince Eugene was suffered to do three times in two days, in the presence of the Duke of Orleans, before the battle of Turin. The ground between the two armies was level, and there was

an advantageous opportunity of attacking the enemy even with superior numbers ; notwithstanding which, it was neglected, and the siege of Turin in consequence obliged to be raised.

In a situation like this, the enemy that comes to relieve the place must always have the advantage, unless the siege is raised in proper time for the besiegers to march against him. The engagement moreover will never be general on his side, but quite the reverse on theirs ; because the former has all his troops assembled together between two rivers, his flanks being secured, and his army formed in deep order ; while, on the other hand, the latter are dispersed, and incapable of making so strong a disposition. If therefore they are repulsed, their lines are immediately exposed to be flanked, and their whole army is defeated. Deliberations, in extremities of this nature, are fatal. Nevertheless, an enemy will sometimes make use of appearances to alarm the besiegers, and to induce them to quit their posts, in order to obtain thereby an opportunity of throwing succours into the place ; to prevent which, and to be capable of distinguishing reality from pretence upon every such occasion, is the peculiar characteristic of an able general.

The most prudent method for the besiegers, is, to assemble a sufficient number of troops to oppose the enemy, and to leave the remainder in the lines, in readiness to attack every thing that may attempt to make its entrance into the place.

place. But then they are not to stand motionless with arms across, as if they were petrified or enchanted, and to suffer the enemy to pass a river, with his flanks exposed to them, unmolested; for when such favourable opportunities offer, they have only to take their choice which of the two flanks to attack; after which, there is all the appearance of their meeting with little or no resistance.

Marshal Villars had been ruined at the battle of Denin, if Prince Eugene had attacked him when he passed the Sheld in his presence, with his flanks exposed to him. The Prince could never imagine the Marshal would make any attempt so full of danger, immediately before his face; and that was the circumstance which deceived him. The Marshal had covered his march with great skill and address; which the Prince surveyed for a considerable space, with all his troops under arms, without being able to discover his real design; at which time if he had advanced, the whole French army must have been destroyed, because its flank was then exposed, and a great part of it moreover had already passed the river. At eleven o'clock the Prince said, "I think we might as well go to dinner!" and ordered the troops to refresh; but he had scarcely sat down to table, when Lord Albemarle sent him intelligence, that the head of the French army appeared on the other side of the river, and was actually preparing to make an attack. If he had marched immediately upon the receipt

ceipt of this information, there still remained sufficient time to have cut off at least a third part of the French army : nevertheless, he only gave orders to a few brigades upon his right, to march to the intrenchments of Denin, which were four leagues off ; and then went with all speed to reconnoitre in person ; not being even yet able to persuade himself, that the French could possibly have passed the river. At length he discovered his error, and saw them forming their disposition for the attack, when he immediately gave up his retrenchment for lost ; and after having examined them for a moment with no small mortification, he gave orders for the cavalry that was in that post to retreat.

The effects produced by this affair are hardly to be conceived : it made the difference of above 100 battalions to the two armies ; for the Prince became thereby obliged to throw troops into all the adjacent places ; and the Marshal, perceiving the allies were no longer in a capacity to carry on a siege, after they had lost all their magazines, drew above fifty battalions out of the neighbouring garrisons, which strengthened his army to such a degree, that the Prince, not daring to keep the field any longer, was forced to deposit all his artillery in Quesnoy ; in which place it was afterwards taken.

When towns are situated at the junction of rivers, it is always practicable for an army that comes to the relief of the besieged, to destroy  
the

the bridges of communication belonging to the besiegers; by which means, their troops being divided, one may be able to defeat them in separate bodies, and consequently to oblige them to raise the siege. The former are not afraid of attacking the line of countervallation, because they know the latter will be deterred from abandoning their posts to oppose them, both on account of the superiority of numbers against them, and the extent of the ground to be maintained, which must continue to increase upon them, in proportion as they move further from their works: they moreover naturally become discouraged by this necessity of remaining behind their intrenchments; while the enemy, on the contrary, having little or nothing to fear, is thereby imboldened; a circumstance which amounts to more than half the victory in an engagement.

With regard to the passage of rivers by open force, I look upon it as a thing hardly possible to prevent, especially when sustained by a large fire of artillery, to gain time for the van to intrench itself, and to throw up a work to cover the bridge. There is nothing effectual to be done in the day. Nevertheless, during the night, this work may be attacked with great advantage; and if it happens that the enemy has begun his passage at that time, he must be thrown into a general confusion, attended with the certain loss of those who may have already passed. But an attack of this kind must be made with a large force; and if the opportunity

opportunity of the night is suffered to pass unimproved, his whole army will have got over before morning ; after which, it is no longer practicable to make any attempt upon him, without drawing on a general engagement ; which situation and circumstance renders sometimes very imprudent to hazard.

In short, there are a great many established rules for the passage of rivers, which people put in practice with more or less success upon every occasion, according to the different degrees of their abilities.

The affair of Denin puts me in mind of an accident, which it is not unseasonable *en passant* to give an account of. — The French cavalry being dismounted after the action was over, the Marshal, who was always in high spirits, says to the soldiers of a regiment upon his right, as he was passing along the line, *Well, my lads, we have beat 'em !* upon which some begun to cry out, *Long live the King !* others to throw their hats into the air, and to fire their pieces. The cavalry joining in the acclamation, alarmed the horses to such a degree, that they broke loose from the men, and galloped quite away ; insomuch that if there had been four men in the front of them, they might very easily have led them all off to the enemy. It moreover occasioned some considerable damage, as well as disorder, great numbers of the men being wounded, and a quantity of arms lost. — I was unwilling to omit here the relation of this circumstance, for the  
sake



fake of introducing a description of the method of decoying horses, as there are but few partisans who are acquainted with it.

The decoy is a very diverting stratagem to carry off the enemy's horses in a foraging-party, or from the pasture. To execute this, you must be disguised, and so mix on horse-back in the pasture, or amongst the foragers, on that side on which you propose to fly: you must then begin, by firing a few shots, which are to be answered by such of your party as are appointed to drive up the rear, and are posted at the opposite extremity of the pasture, or foraging-ground; after which they are to gallop from their different stations towards the side fixed for the flight, shouting and firing all the way. The horses being thus alarmed, and provoked by the example of others, will break loose from the pickets, throw down their riders, and the trusses, and, setting up a gallop, will naturally direct their course to the same side; insomuch that if the number of them was ever so great, you might lead them in that manner for several leagues together. When you have got into some road bordered by a hedge, or ditch, you must stop as gently as possible, and without making any noise, where the horses will suffer themselves to be taken without opposition.—Such an artifice practised upon an enemy, must distress him not a little, and is what I once saw put in execution myself: but as all the good customs have been

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exploded,

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exploded, this appears to be forgotten with the  
rest.

## C H A P. VI.

*Of situations proper for the incampment of armies, and for engagements.*

**I**T is the part of an able general, to derive advantages from every different situation which nature presents to him; from plains, mountains, hollow ways, ponds, rivers, woods, and an infinite number of other particulars, all which are capable of rendering great services, when they are converted to proper purposes: but although they make so material an alteration, both in situation and circumstance, wherever they happen to be; yet as such advantages are frequently overlooked, till the opportunity of profiting by them is lost, it may not be unseasonable to enter into some detail upon the subject.

Let us then, in the first place, suppose a piece of ground divided by a rivulet, and a chain of ponds \*, as represented in plate 9. fig. 27. and 28.—AA represents the army marching up to attack BB, whose infantry is at first drawn up in one line to cover the ponds: but

\* It is always an easy matter to make ponds in a situation where there is a rivulet, by stopping its course at certain distances with banks, and, as one pond fills, directing its overflows into another.

as soon as the enemy arrives within reach, my infantry in the front of these ponds marches back by the intervals or banks between them, to form a second line; and my cavalry is at the same time advanced upon the right, to keep in awe the enemy's left wing; which movement alone is sufficient to disconcert him: if he attempts to attack this cavalry, it is to repass the intervals between the ponds, which are guarded by bodies of infantry, that are posted immediately behind them. This manœuvre will have so long engaged the enemy's attention upon his left, that he will not have sufficient time to change his disposition, or to reinforce his right: because the moment my cavalry is arrived upon my right, I attack all that part of the enemy's line that lies between me and the rivulet, which very probably I shall throw into confusion. His right wing being thus defeated, the rest of his army will be assaulted in front and rear by my two wings of cavalry, and in flank by all my infantry. If he inclines in the least to the right, in order to present a front to my infantry, he will thereby expose his left flank to the troops which I have posted upon my right, and upon the intervals between the ponds: under these circumstances therefore it will be impossible for him to make any movement, without being thrown into confusion.

According to this disposition, I suppose the enemy's army to consist of double the strength of mine; and although it may be imagined,

that the cavalry upon my right is in danger of being cut to pieces, yet the more the attention of the enemy is taken up with an object in his front, the more he will be intangled in the snare that is laid before him ; for I shall thereby be furnished with a better opportunity of falling upon his rear ; after which my cavalry must be more than commonly unfortunate, if it be not able to make good its retreat by the intervals between the ponds, where the enemy will certainly not dare to pursue it.

Plate 10. fig. 29. represents the two armies in another situation, where AA is to attack BB : CCC are three strong redoubts thrown up at the distance of three hundred paces in the front of BB, furnished each with two battalions, and every thing else that may be necessary for their defence : D is some detached cavalry : EE are two flanking batteries : FF two battalions posted in two redoubts to cover the batteries.— I suppose the enemy's army AA to be twice as powerful in numbers as BB ; nevertheless, in what manner is he to attack me in this disposition ? It is impossible for him to march up in line of battle, without being broken and disordered, till he has first rendered himself master of my redoubts ; in attempting to do which, he will be exposed to a severe flanking fire from my two battalions ; and to pass the redoubts, and leave them in his rear, will be impracticable : if then he resolves to attack them by detachments, I shall in like manner make others to maintain them ; in  
which

which I must have considerably the advantage, on account of the damage that he will unavoidably sustain from my cannon: if he advances with his whole army against them, I give the signal for my cavalry, which is concealed behind the wood, to move up at full speed, and fall upon his rear; at which time I also march up, and charge him in front: being therefore at once embarrassed by the redoubts, thrown into some disorder, and attacked in rear, there is all the appearance of my obtaining an easy victory.

This is an excellent disposition, where you can be certain that the enemy is either inclined, or obliged to attack you; for one cannot possibly be too careful in avoiding every step that may correspond with any hopes or expectations of his. This is a maxim in war never to be departed from, but in extraordinary cases, where no fixed rules can be given. A good opportunity for engaging should never be neglected, merely because the situation may happen not to be strictly agreeable to your fancy; for you must form your disposition according as you find it, and decline the attack altogether, unless you can make it with advantage; by which I mean, unless your flanks are well covered; unless you can engage a small part of his army, with a large part of yours; can amuse, or keep a check upon him, by the means of any small river, marsh, or other obstacle that may lie between you; supported by circumstances of which nature, you can attack  
him

him with confidence, although considerably inferior in numbers, because you will risk nothing, and may obtain a great deal.

Suppose, for instance, his army BB to be divided by a river in the manner represented in plate 11. fig. 30. and that I am to attack him with AA in that situation; I shall therefore make the following disposition for it. With my right wing I shall keep in awe his left; and with my left try all efforts to defeat his right: according to appearances, I shall be able to pierce him in the part marked C, upon the bank of the river; for it is but reasonable to suppose, that the strong must overpower the weak; in consequence of which advantage, as the communication between the two divisions of his army will be thereby cut off, and the left, in which his principal strength consisted, be no longer able to sustain the right, he must be rendered incapable of maintaining his ground; and finding himself exposed both in front and flank, will undoubtedly retire.— Let us proceed to another example.

A \* is the enemy's army which I am to attack with B: the rivulet between us is supposed to be every where fordable; and the incampment of A to be made upon its banks, as is usually the custom in such situations, as well on account of the protection which it naturally affords, as for the convenience of the water: the enemy being in this disposition, I arrive towards the evening, and incamp with B

\* See plate 11. fig. 31.

on the opposite side. As he will not be inclined to trust to the uncertain event of an immediate engagement, he will undoubtedly therefore not pass the rivulet, or quit the advantage of his post, to attack me in the night-time; on the other hand, I rather imagine that he will be altogether taken up in providing for the defence of it: on my side, I shall only leave one weak line opposite to him, and marching all night with the remainder, gain the position C. I have nothing to fear from the enemy, in making this movement; for he will certainly not venture to pass the rivulet, or to leave his post unguarded, on bare surmise or conjecture only. The day arriving, he discovers me upon his left flank, as well as in front; after which it will be impossible for him to make any disposition, or to form any order of battle, without being thrown into confusion; for I shall fall upon him before he can have had sufficient time to finish it: but his attention will principally be taken up, in sustaining his post upon the rivulet, which I shall attack at the same time, with the troops that were left on the opposite side for that purpose: he will detach some brigades to oppose me upon the left, which arriving *en detail*, and having to engage with a large body, drawn up in good order, will easily be repulsed; insomuch that he will be in a manner totally defeated, before he can be even able to persuade himself, that the real attack was made on this side; and after having thus at length discovered his mistake,

take,

take, he will cease to be in any kind of capacity to remedy it.

Plate 4. fig. 32. represents another situation, in which the enemy's army AAA, is supposed to be formed in separate bodies, and extended to a considerable distance all along a large river, in order to cover a province, as is frequently the case. AAA is therefore to defend the river, and BBB is the offensive army, endeavouring to pass it; and extended in like manner upon the opposite borders. These large rivers have generally plains on both sides, bounded by mountains, out of which issue small ones, or rivulets, that are sometimes of a considerable size, and that discharge themselves into the greater: by the means therefore of such a rivulet, one must endeavour to build a bridge, unknown to the enemy; for in this lies the great difficulty of passing all rivers: after having then prepared your bridge all along the rivulet, you are to throw it over that part of the river marked C, where you are to force your passage; in which, I take it for granted, you will be able to succeed, especially if you make at the same time two false attacks at the places marked D and E: the enemy will not dare to vacate any of his posts, neither will the general officers, situated in different quarters, execute any orders they may receive to that effect; for as, at this time, they will be engaged themselves, and as each will suppose his to be the real attack, they will from thence be induced, not unreasonably, to suppose,



pose, that their commander in chief had not been informed of it: during all this time the grand effort is making at the centre between the rivulet and the mountain, marked F. The first step to be taken after the passage, is to possess yourself of the eminencies; by which means you divide the enemy, and having cut off his communications, he can hardly hope to time his arrival afterwards so well, as to be able to attack you on both sides at once; and although he even does, he will nevertheless be easily demolished: the circumstance of your being possessed of these advantages, without having suffered any loss in the obtaining of them, will add to his confusion; for notwithstanding your passage should be disputed, yet the opposition you meet with, can never be considerable enough to permit it; especially when you have used proper precautions, and made your disposition with judgment. After you have once taken post, and erected your bridge, for which four hours is a sufficient space of time, and as much more that will be required for the passage of 30,000 men, you may allow the enemy twenty-four hours to penetrate into your real design, and twenty-four more to assemble either half of his army, at the place in which he has attacked you: but even this will be rendered impracticable, because I suppose you to be effectually covered after you have passed, by the rivulet on the one side, and by the mountain on the other.

All the large rivers that I have seen, produce

duce a great variety of situations, where passages of this kind may be executed; and smaller ones afford likewise the same; but they are seldom quite so commodious, because the plains and mountains which surround them are usually not so advantageous, nor the rivulets so considerable.—In short, by discernment one may reap advantages from a thousand different sorts of situations; and a commander void of that, cannot possibly be expected to do any great things, even with the most numerous armies.

I am unwilling to finish this chapter, without making some observations upon the battle of Malplaquet. If, instead of posting the French troops in bad intrenchments, the three woods overagainst the hollow ground had been only cut down, and three or four redoubts thrown up in it, supported by a few bridges, I am of opinion, that things would have taken a different turn: for had the allies attacked them, they must have lost an infinite number of men, without ever being able to carry them. It is the property of the French nation to attack: but when a general is unwilling to depend altogether upon the exact discipline of troops, and upon that great order, which, according to the present system, is always necessary to be observed in actions, he ought, by throwing up redoubts, to introduce the method of engaging *en detail*, and of attacking by brigades; in which he might certainly succeed very well. The first shock of the French is scarcely to be resisted;

resisted; nevertheless it is the part of a general, to be able, by the prudence of his disposition, to renew it: and no means can facilitate this so much as redoubts; for you can always send fresh troops to sustain them, and to oppose the enemy. Nothing can possibly create such distraction, or tend to dispirit him to so great a degree, because he will be afraid, at every attack, of being exposed in flank: while, on the other hand, your own troops become thereby encouraged; for they are conscious that their retreat is secure, and that the enemy will not dare to pursue them beyond the redoubts. It is upon such an occasion, that you might be able to reap the greatest advantages from their vigour and impetuosity: but to post them behind intrenchments, is in a manner to occasion their defeat; or at least to deprive them of the means by which they might have conquered.—— That would have been the event of the day at Malplaquet, if Marshal Villars had taken the greatest part of his army, and attacked the one half of that of the allies, which had been so imprudent, as to form a disposition in which it was totally separated from the other by a wood, without having any communication at the same time made between them: the flanks and rear, moreover, of the French army would have been under cover, as may be seen in the situation of it, represented in plate 12. fig. 34.

There is more address required in making bad dispositions, than may at first be imagined,

provided they be such as are intentional, and so formed as to admit of being instantaneously converted into good ones. Nothing can confound an enemy more, who has perhaps been anticipating a victory, than a stratagem of this kind; for he perceives your weakness, and draws up his army in the order in which he expects to benefit the most from it; but the attack is no sooner begun, than he discovers the imposition. I must repeat it therefore, that nothing can possibly disconcert an enemy so much, or plunge him into errors so dangerous; for if he does not change his disposition, he must infallibly be defeated; and the alternative, in the presence of his adversary, will be attended with the same fatal consequences.

If the Marshal had abandoned his intrenchment at the approach of the allies, and made his disposition in the manner represented in plate 35. it appears to me, that he would have succeeded much better.

## C H A P. VII.

### *Of lines and retrenchments.*

**T**Hese are works to which I am altogether averse, from a persuasion, that the only good lines are those which nature has made; and that the best retrenchments are, in other words, the best dispositions, and the best disciplined troops.

I scarcely remember a single instance of lines or retrenchments having been assaulted, and not carried. If you are inferior to the enemy in numbers, you will not be able to defend them, when they are attacked with all his forces, in two or three different places at once: the same will be the consequence, if you are upon an equality with him: and with a superiority, you have no occasion for them. What sufficient reason can you therefore assign, for bestowing so much labour in the construction of works, which appear to answer your purpose so little?

The persuasion of the enemy, that you will never dare to leave them, renders him bold. He trifles with you even before your face, and hazards several movements, which he would be afraid to make, if you was in any other situation. And this courage is equally diffused amongst both officers and soldiers; because a man always dreads danger itself less than he does the consequences of it; which is an argument that I could support by a number of examples.

Suppose a retrenchment to be attacked by a column, the head of which is arrived upon the brink of the ditch; if, at that time, only a handful of men should make their appearance, at the distance of a hundred paces without the retrenchment, nothing is more certain, than that the front of this column would instantly halt; or, at least, would not be followed by the rear: the reason for which can be deduced from

from no other source than the human heart. — If only ten men get footing upon a retrenchment, whole battalions that have been posted behind for its defence, will abandon it. They no sooner see a troop of horse enter within half a league off them, than they give themselves totally up to flight.

As often therefore as one is obliged to defend retrenchments, one must take particular care to post all the troops behind the parapet; because, if once the enemy sets foot upon that, the defendants will no longer think of any thing but their own security; which proceeds from that consternation which is the unavoidable effect of sudden and unexpected events. This is a general rule in war, and is what determines the fate of the day in all actions. It is the irresistible impulse of the human heart, which, on account of its consequences, was the principal motive that induced me to attempt this work; as I am apt to imagine, it would never have occurred to any other person to ascribe the greatest part of the bad success of armies to this cause, although the true one.

If then you station your troops behind the parapet, their only hopes and expectations are, to prevent the enemy by their fire from passing the ditch, and forcing it; which if he is once able to accomplish, they instantly give themselves up for lost, and in consequence take to flight. Instead of this method, it will be much more prudent to post a single rank there, armed

ed with pikes, whose business will be to push the assailants back therewith, as fast as they attempt to mount. This your men will certainly execute ; because it is what they expect and are prepared for. If, moreover, you post bodies of infantry, at the distance of thirty paces, in the front of the retrenchment, they will not be confounded at the approach of the enemy, from a consciousness of their being stationed there for no other purpose than to oppose him, which, for that reason, they will do with proper vigour and resolution ; while, on the contrary, had they been all posted behind it, they would have fled at his appearance. Thus we see upon what nice distinctions every thing in war depends, and how irresistibly weak mortals are governed by mere momentary caprice and opinion.

To this I might add the absurdity of our manner of drawing up the troops for the defence of retrenchments. We post our battalions four deep behind the parapet ; in which order the front-rank only is able to do execution, because it fires off the banquette : And although the others may be advanced after the front has fired, yet their shots are only thrown away, because the men are crowded together, and do not take aim at any certain object. They must necessarily also be involved in great confusion ; from which the enemy cannot fail to reap advantage, when he arrives upon the parapet, which they are moreover totally incapable of preventing, for want of  
being

being properly prepared, with fixed bayonets or pikes. They make a continual bustle in your battalions ; or rather, it is your battalions themselves, which form a busy and confused croud, like a swarm of ants, that have been disturbed in their nest. Every man's attention is taken up with his firing only ; and the moment the enemy sets foot upon the parapet, they abandon the defence of it.

If I had a \* retrenchment to maintain, I should make use of a different disposition for that purpose ; of which the following is a description.

I should post my centuries all along the parapet in two ranks ; the first, armed with fusées, upon the banquette, and the second, with pikes, at the foot of it, together with the officers and non-commissioned officers. The light-armed troops I should also post upon the banquette, by the addition of which to the front-rank, it would consist of about 100 men *per* century, and the rear-rank of about fifty, exclusive of the officers. As I erect my parapet six feet high, the assailants, who would otherwise take post upon the berm, in order to fire over it, will be deprived of their usual resource, and find themselves obliged to mount it : in attempting which, they must be pushed back, and destroyed by the pikes of my rear-rank. The officers and non-commissioned officers are to be posted one to every five men, and must

\* See plate 5. fig. 36.



be attentive to their behaviour ; encouraging them at the same time, and taking care that they make a proper use of their weapons. It is moreover in a particular manner necessary to persuade them, that they are by no means to depend upon the effect of their small arms, or to imagine their firing only will be sufficient to repel the enemy ; but that the top of the parapet is the place where they will be required to exert themselves. These precautions will prevent their being surpris'd, or terrified to see him enter the ditch ; for as it cannot be doubted, but that he will take a firm resolution to stand their fire, which it is as certain that he will be able to go through, one ought therefore to expect, and be prepared for the consequence. If he endeavours to take post upon the berm of the retrenchment, in order to dislodge me from the banquette, which is frequently the case, I shall be able to reach him with my pikes, and to push him back, man by man, as fast as he approaches. But if, at length, notwithstanding all opposition, he forces the retrenchment, and attempts to form, I shall charge him *en detail* by centuries : and as my troops have been properly prepared for all extremities, they will, for that reason, be subject to no surprise, and will make their assault with vigour.

This is all that can be said concerning the defence of retrenchments. But one must have different reserves in readiness to reinforce occasionally those posts against which the ene-

my's principal strength appears to be directed : a circumstance not always easy to accomplish, because it is what a skilful adversary will prevent your being able to discover : They must therefore be stationed as much at hand, and as advantageously as possible ; which is to be determined by the nature of the situation, as well without as within the retrenchment. You need be under no apprehensions of being attacked in places where the ground is level to any considerable distance ; for in such it will be difficult for the enemy to disguise his real purpose : but whenever there happens to be any eminence, hollow, or other piece of ground to cover his approach ; there you may expect him to make all his efforts, because he will thereby hope to conceal his disposition and numbers.

If you can contrive some passages in your retrenchments, for a party or two to sally out of, just as the head of the enemy's columns arrives upon the brink of the ditch, they will certainly make them halt the same instant ; even although they have forced the retrenchment, and that some part of them have already entered ; for, as they are unprepared for any such incident, they will be alarmed for their flanks and rear, and, in all probability, take to flight.

Amongst a thousand examples that might be produced, to authorise my ideas upon this head, I shall make choice of the two following

Cæsar

Cæsar being desirous to relieve Amiens when it was besieged by the Gauls, arrived with his army, which consisted of no more than 7000 men, upon the borders of a rivulet; where, immediately after, he threw up a retrenchment with so much precipitation, that the barbarians, imagining he was afraid of them, attacked it, although in reality he had no manner of intention to defend it; for, on the contrary, while they were employed in filling up the ditch, and rendering themselves masters of the parapet, he sallied out with his cohorts, and thereby threw them into so great a consternation, that they all turned their backs, and fled, without so much as a single person's making the least attempt to defend himself.

Alesia being besieged by the Romans, the Gauls, who were infinitely superior in numbers, marched to attack them in their lines. Cæsar, instead of defending them, gave orders to his troops to make a sally, and to fall upon the enemy on one side, while he attacked them on the other; in which he succeeded so remarkably well, that the Gauls were routed with a considerable loss, exclusive of above 20,000 men, that were taken prisoners, together with their general.

If one does but consider the \* method in which I form my troops, one must readily allow that they will be capable of moving with much more facility than our battalions in their

\* See plate 11. fig. 37. and plate 4. fig. 38.

present extensive order ; for supposing several of them to be drawn up four deep, one behind another, what service can they render in that disposition ? They are unwieldy ; every trifle serves to imbarrafs them, the ground, their doubling, or any other such circumstance ; and if the first is repulsed, it falls in disorder upon the second. Nevertheless, suppose the second is not thereby disordered, yet it will require a long space of time before it can possibly be able to charge, because the first, which is broken, must be allowed to move clear of its front ; and unless the enemy is so complaisant as to wait with his arms across during all this time, he will certainly drive that battalion upon the second, and the second upon the third ; for after having repulsed the first, he has nothing to do, but to advance briskly forward ; and if there were thirty, one in the rear of another, he will throw them all into confusion.—Yet this is what is called attacking in column by battalions.

My disposition is of a very different kind : for although the first battalion should be driven back, that which follows it, will notwithstanding be able to charge in the same instant, moving up in quick succession, and renewing the attack with fresh vigour. I am moreover formed eight deep ; have no sort of imbarraffment to apprehend ; my march is rapid, and yet free from all manner of disorder ; my charge is violent ; and I shall always outflank the enemy, although equal in numbers. Nothing

thing certainly can be more wretched and absurd, than the order of battle which is at present in general use ; and I am at a loss to know why the principal officers can suffer it so long to prevail, and have not yet attempted to make some alteration in it.—Mine is far from being new ; for it is that of the Romans, that with which they conquered the universe. The Greeks had great knowledge in the art of war, and were very well disciplined ; yet their large phalanx was never able to contend with the small bodies of the Romans disposed in this order ; in which opinion I am supported by Polybius \*, who concurs with me in giving them the preference. What then can be expected from our battalions, when opposed against them, which have neither strength nor principle to vindicate their disposition ? Let the centuries be posted in what situation you please ; in a plain, or in rough ground ; make them fall out of a narrow pass, or any other place, and you will see with what surprising celerity they will form : order them to run at full speed, in order to take possession of a defile, hedge, or eminence ; and the instant in which

\* At the time when I finished this work, I had not read Polybius throughout ; but having, in a late perusal of him, met with the following comparative account of the two nations concerning the subject in question, I was glad to give it a place here ; esteeming myself happy to have thought like him, who was cotemporary with Scipio, Annibal, and Philip ; and who, during the course of the several wars carried on by these celebrated captains, served in different armies, and was invested with great commands. So illustrious an author cannot fail of justifying my ideas.

the standards arrive, they will be drawn up, and dressed. This is what is absolutely impracticable with our long battalions: for to march them with any regularity, and to form them in their natural disposition, will require a great deal of time, and likewise a piece of ground made on purpose; which are things so incompatible with the service, that it is impossible to see them put in execution without the utmost disgust and impatience.

“ I promised, in my sixth book, to seize  
 “ the first opportunity that offered, to make a  
 “ comparison between the arms of the Macedonians and Romans, as also between their  
 “ different orders of battle; and at the same  
 “ time to particularize in what the advantage,  
 “ or disadvantage of the one, in respect of the  
 “ other, consisted. As it is but proper that I  
 “ should keep my word, I shall therefore lay  
 “ hold of this occasion, which the action \*  
 “ that I have been just relating, affords me  
 “ for that purpose.

“ Formerly the Macedonian disposition surpassed that of the Asiatics and Greeks; a  
 “ circumstance rendered incontestable by the  
 “ victories which it obtained over them; neither was its deficiency the occasion of its  
 “ yielding even to that of the Romans in Africa and Europe. But as their orders of battle  
 “ are now frequently opposed one against another,

\* If the reader has any inclination to see Polybius's account of this action, which was between Philip and Flaminius, he will find it in the third chapter of his 17th book.

“ other,

“ other, it will not be amiss to trace the parti-  
 “ culars of their difference, and thereby ascer-  
 “ tain the reason why the preference is due to  
 “ the Romans. After having by this method  
 “ made ourselves thoroughly masters of the sub-  
 “ ject, we shall probably no longer ascribe the  
 “ success of events to fortune, and blindly ap-  
 “ plaud conquerors, without being acquainted  
 “ with the cause of their victories, as ignorant  
 “ persons are apt to do ; but at length accu-  
 “ sation from ourselves both to approve and to con-  
 “ demn from principle and reason.

“ I imagine it will be unnecessary to ob-  
 “ serve, that one must not, from the engage-  
 “ ments which Hannibal had with the Ro-  
 “ mans, and the victories he obtained over  
 “ them, come to any decision concerning their  
 “ different methods of fighting ; because he  
 “ was not indebted for his conquests, either  
 “ to his superior manner of arming his troops,  
 “ or of drawing them up ; but to his skill and  
 “ dexterity. This is what we have clearly de-  
 “ monstrated in the course of our relation of  
 “ his battles ; and such as require any further  
 “ conviction, let them cast their eyes upon  
 “ the event of the war. As soon as the Ro-  
 “ mans got a general of equal abilities at their  
 “ head, they became victorious : but I might  
 “ appeal to the example of even Hannibal  
 “ himself, who, immediately after his first  
 “ battle, abandoned the Carthaginian armour,  
 “ to adopt that of the Romans, which more-  
 “ over he never afterwards laid aside. Pyr-  
 “ rhus

“ thus even went further ; for he not only  
“ took their arms, but likewise employed their  
“ very troops in Italy. In his engagements  
“ with the Romans, he drew up alternately  
“ one of their companies, and one cohort in  
“ the form of the phalanx ; yet this manner  
“ of incorporating them availed nothing ; for  
“ the advantages which he at any time gained,  
“ were always extremely dubious and uncertain.

“ This introduction to the subject was necessary, in order to prepossess and prepare  
“ the minds of my readers for the perusal of  
“ the sequel. I now therefore proceed to my  
“ comparison of the two distinct orders of  
“ battle.

“ It is an invariable truth, and what may  
“ be justified by a thousand instances, that  
“ so long as the phalanx can maintain itself in  
“ its natural order, nothing can possibly resist  
“ it in front, or support the violence of its  
“ shock. Every soldier under arms is allowed  
“ the space of three feet. The pike was  
“ originally twenty-four feet in length, but  
“ has since been made three feet shorter, in  
“ order to render it more convenient : after  
“ which diminution of it, there remain, from  
“ the part which the soldier holds in his left  
“ hand, to the butt-end in his right, six feet,  
“ which serves likewise by way of a counterpoise  
“ to the other end ; and consequently,  
“ when he pushes it with both hands against  
“ the enemy, it extends fifteen feet before  
“ him.



“ him. When the phalanx therefore is properly formed, and its ranks and files are at charging-order, the pikes of the fifth rank pass the first three feet; those of the fourth, six feet; those of the third, nine feet; those of the second, twelve feet; and those in the front are advanced fifteen feet. As the phalanx is drawn up sixteen deep, one may readily imagine what must be the shock of such an immense body. The soldiers indeed, in all ranks after the fifth, cannot fight against the enemy, nor reach him with their pikes; yet, by keeping them advanced, and sloping over the heads of the ranks in their front, they break the force of the missile weapons that are discharged against them. They are also of great service when they march up to the attack, in supporting and pushing forwards their leaders; by doing which, they at the same time deprive them of all possibility of flying.

“ Having thus taken a view of the entire body, as well as the different parts of the phalanx, let us now examine the property of the armour, and order of battle of the Romans, that we may from thence be able to make the comparison which we have promised.

“ A Roman soldier only occupies three feet of ground; but as, in covering himself with his buckler, and using his sword, he must of necessity make some movement; an interval therefore of at least three feet

“ must be allowed between the ranks and  
“ files, in order to render him capable of per-  
“ forming all his motions with proper ease  
“ and convenience. In action, therefore, eve-  
“ ry Roman soldier has two men, and ten  
“ pikes, to force ; which, when they come  
“ to close quarters, is more than he is able to  
“ do, either by destroying or breaking them :  
“ neither can the ranks which follow him be  
“ of any assistance in that respect ; the vio-  
“ lence of their charge will be equally insuffi-  
“ cient, and his sword will be rendered use-  
“ less.

“ From hence it appears how much reason  
“ there is to say, that the phalanx is invincible  
“ in front, so long as it preserves its natural  
“ order, and that no other disposition is able  
“ to resist it. From whence then, it may be  
“ said, comes it to pass, that the Romans  
“ conquered it ? Because in war the time and  
“ place of engagement make an infinite dif-  
“ ference in circumstances ; and the construc-  
“ tion of the phalanx is such, as renders it  
“ incapable of acting with all its force but at  
“ a certain season, and in a certain method.  
“ If an enemy is reduced to the necessity of  
“ engaging it at a time, or in a situation fa-  
“ vourable for it, there is the greatest proba-  
“ bility, as I have already observed, of its  
“ gaining the victory : but if one can deprive  
“ it of both these advantages, which is far  
“ from being a matter of any difficulty, it  
“ will then be no longer so formidable. That

“ to

“ to form only a part of the phalanx, will re-  
 “ quire a situation open, level, free from  
 “ ditches, bogs, hollows, eminences, and  
 “ rivers, is a circumstance universally acknow-  
 “ ledged ; and yet it is extremely difficult, if  
 “ not impossible, to find a piece of ground of  
 “ but twenty furlongs, or a little more, that  
 “ is void of all these obstacles. What use can  
 “ be made of the phalanx, if the enemy, in-  
 “ stead of marching up to it in its chosen si-  
 “ tuation, disperses himself throughout the  
 “ country, plunders the towns, and lays waste  
 “ the territories of its allies ? This large bo-  
 “ dy remaining inactive, rather than quit the  
 “ post that is adapted to it, will not only be  
 “ thereby incapable of assisting its friends,  
 “ but even of supporting itself ; for the enemy  
 “ being master of the country, and meeting  
 “ with no sort of opposition, will carry off  
 “ all its convoys ; and if it relinquishes its  
 “ post, in order to put a stop to these incon-  
 “ veniencies, or to execute any enterprize, it  
 “ thereby loses its power, and exposes itself  
 “ to the derision of its adversary. But even  
 “ suppose the enemy marches to attack it up-  
 “ on its own ground, if he does not present  
 “ his whole army to it at once ; or if, the mo-  
 “ ment in which the action should begin, he  
 “ suddenly avoids it by retreating, what then  
 “ becomes of its mighty power ?

“ It is an easy thing to form a judgment  
 “ concerning it, by the manœuvre which is  
 “ at present in use amongst the Romans ; for

“ I advance nothing upon mere argument,  
“ but refer to absolute facts for my authority,  
“ and such moreover as are yet recent. —  
“ The Romans do not employ all their troops  
“ to make a front equal to that of the phalanx,  
“ but always post one part of them in  
“ reserve, and oppose the enemy with the other.  
“ Whether therefore the phalanx disorders  
“ their front-line, or is broken itself,  
“ they have still a regular body in readiness  
“ for action ; whereas the phalanx, if the event  
“ be such as to oblige it either to pursue or  
“ to fly, it loses equally all its force : for in  
“ both cases it must unavoidably make intervals,  
“ which the reserve will take advantage  
“ of, and charge it both in flank and rear.  
“ — In general, then, as it is easy to avoid  
“ the time, and all such other circumstances  
“ as give the advantage to the phalanx, which,  
“ on the other hand, it is impossible for the  
“ phalanx to return, it may be readily conceived  
“ how much it is inferior to the disposition  
“ of the Romans.

“ We might add likewise the inconvenience  
“ of the phalanx in the case of marching thro’  
“ all sorts of grounds ; in incamping, in taking  
“ possession of advantageous posts, in besieging,  
“ in being besieged, and in surprising  
“ an enemy upon his march ; for all these accidents  
“ frequently occur in war : and although a victory  
“ does not always depend upon them, yet they generally  
“ contribute largely towards it. Nevertheless, it is extremely

“ tremely difficult to employ the phalanx upon  
 “ any of these occasions, because it cannot en-  
 “ gage in such situations, either by cohorts, or  
 “ man to man; whereas the Roman order, even  
 “ in rencounters of this nature, is subject to  
 “ no sort of imbarraffment: every place, every  
 “ time is convenient; the enemy can never  
 “ surprize it from any quarter; the Roman  
 “ soldier is always prepared for action, whe-  
 “ ther it be with the army entire, or with a  
 “ part of it; whether by companies, or man  
 “ to man. Is it then any longer surprizing,  
 “ that the Romans, with an order of battle,  
 “ all the parts of which were capable of act-  
 “ ing with so much facility, succeeded in  
 “ general better in their enterprizes, than those  
 “ who opposed them with any other? —  
 “ Upon the whole, I thought it incumbent  
 “ upon me to discuss this matter at large, be-  
 “ cause most of the Greeks look upon it as a  
 “ kind of prodigy, that the Macedonians have  
 “ been defeated; and because there are others  
 “ again who are still at a loss to know the rea-  
 “ son why the Roman order of battle is supe-  
 “ rior to the phalanx.”

## C H A P. VIII.

### *Of the attack of retrenchments.*

**W**Hen you are to attack a retrenchment,  
 it is always proper to extend your line  
as

as far as possible, in order to keep the enemy every where in awe, and thereby to prevent his drawing troops from any post, to reinforce that which you have an intention to attack, even after you have put it in execution. To effect this, all your centuries, which are to deceive the enemy by their appearance only, are to be drawn up four deep, and to march in a line: the rest of your manœuvre, and your preparations for a real assault, are to be conducted in the rear of them; which is what I call *masking the attack*. This part of the military art depends upon the imagination. A general, in this situation, may have recourse to all sorts of stratagems, because the certainty of his not being attacked in it leaves him at full liberty to make what experiments he pleases: every valley, hollow way, hedge, and a thousand other things, may be converted to some advantage, and rendered instrumental to his success.

In charging by centuries, you need be under no apprehensions of confusion: every centurion will be jealous for the honour of his standard; and amongst the number, it is impossible there can be wanting some, who will be even glad of an opportunity to risk their lives for the sake of signalizing themselves; because the particular behaviour of every century becomes conspicuous by the distinction of its standard.

In approaching the retrenchment, you must advance the light-armed troops, to draw away the  
the

the enemy's fire, taking care to support them with others. After the firing is begun, the centuries are to march up, and charge; if the first are repulsed, they must be succeeded by others before they have had time to fly, till at length, by force and numbers seasonably applied, you have overcome all obstacles. Your centuries that are drawn up four deep are likewise to arrive at the same time, provided you have forced the retrenchment in several places at once; after which, the enemy's battalions perceiving your line advancing upon them, and finding themselves exposed both in front and rear, will abandon their posts. You have then nothing to do, but to take possession of the parapet, and after that, to form your troops in proper order; during which time the enemy, instead of making any further opposition, will be retreating from you; because he imagines he has done all that he could.

But there is another method of attacking retrenchments \*, altogether different from this which I have just been describing, and to the full as good; provided you are perfectly well acquainted with the ground, and that it is such as will admit of its being put in practice. When there is any hollow way, or bottom near the retrenchment, capable of holding troops under cover, you are to convey, without the enemy's knowledge, and during your march, a proper number into it; after which, you must advance in several columns with large

\* See plate 3. fig. 39.

intervals between them, to attack a part of the retrenchment at some distance from it; for these will attract all his attention, and tempt him to draw away his troops from other posts, in order to strengthen his disposition against the columns in this. As soon therefore as they begin the attack, all his forces will unite to oppose them; upon which your troops, that have been concealed, are suddenly to sally out, and to assault the abandoned part of the retrenchment: those who are engaged against the columns, upon seeing this, will be thrown into a consternation, because they are totally unprepared for any such event; and, under the pretence of hastening to the defence of that part of the retrenchment, which is thus unexpectedly attacked, will instantly desert the other, and fly.

The defence of retrenchments is attended with a great many difficulties, because it is a manœuvre that intimidates the troops: and although I have given my opinion in regard to what may be useful upon the subject, and have recommended such measures as appear the most promising of success; yet I am far from being an advocate for these works, and am rather disposed to exert my influence towards having them totally laid aside. My favourite defences are redoubts, the superior advantage of which I shall endeavour to demonstrate in the following chapter.



## C H A P. IX.

*Of redoubts, and their excellence in orders of battle.*

**T**O justify by facts that high opinion which I entertain of redoubts, is a task remaining now to be performed.

The arms of Charles XII. King of Sweden, were always victorious before the battle of Pultowa: the superiority they obtained over those of the Muscovites, is almost incredible: it was no unusual thing for 10 or 12,000 Swedes to force retrenchments defended by 50, 60, or even 80,000 Muscovites, and to cut them to pieces; they never inquired after their numbers, but only after the place where they might be found.

The Czar Peter, who was the greatest man of his age, bore the bad success of this war with a patience equal to the dignity of his genius, and still persisted in fighting, on account of exercising his troops, and inuring them to hardships. In the course of his adversities, the King of Sweden laid siege to Pultowa; upon which the Czar called a council of war, where it was for a long time debated, and various opinions were given, concerning the step most proper to be taken in this exigency. Some were for surrounding the King of Sweden with the Muscovite army, and for throwing up a large retrenchment in order to oblige him to

D d

surrender.

surrender. Others were for burning all the country within 100 leagues in circumference, to reduce him by famine ; which opinion was far from being the worst, and was also most conformable to that of the Czar : others, however, objected to it, by observing, that it could never be too late to have recourse to such an expedient, but that they ought first to hazard a battle, because the town and its garrison were in danger of being carried by the invincible obstinacy of the King of Sweden, where he would find a large magazine, and a sufficient supply of every thing to enable him to pass the desert with which they proposed to surround him. This being at length the determined opinion of the council, the Czar thus addressed himself to them.

“ Since we have come to a resolution to  
 “ fight the King of Sweden, nothing remains  
 “ but to agree about the method, and to make  
 “ choice of that which promises the most suc-  
 “ cess. The Swedes are well exercised, well  
 “ disciplined, adroit under arms, and impe-  
 “ tuous in their charge : our troops are not in-  
 “ ferior to them in point of resolution, but  
 “ they certainly are in many other respects ;  
 “ it therefore becomes necessary to fall upon  
 “ some scheme that may render this superiority  
 “ of theirs useless to them : they have fre-  
 “ quently forced our retrenchments ; and have  
 “ always defeated us in the open field by dint  
 “ of art, and by the facility with which they  
 “ perform their manœuvres. In order then

“ to

“ to counterbalance these advantages in the e-  
“ nemy, I propose to draw near to him; to  
“ throw up several redoubts in the front of our  
“ infantry, with deep ditches before them; to  
“ fraise and palisade them, and to defend them  
“ with infantry; and after having erect-  
“ ed these works, which will not require a-  
“ bove a few hours labour, to wait for the e-  
“ nemy with the rest of our army behind  
“ them: he must infallibly be broken in at-  
“ tacking them, must lose great numbers, and  
“ will both be weakened, and in great disor-  
“ der, when he attempts to pass the redoubts  
“ to charge us; for it is not to be doubted, but  
“ that he will raise the siege to engage us, as  
“ soon as he perceives that we are within his  
“ reach. We must therefore march in such  
“ manner as to arrive before him, towards the  
“ close of the day, that he may be thereby  
“ induced to defer his attack till the day fol-  
“ lowing, and take the advantage of the night  
“ to erect these redoubts.”

Thus spoke the sovereign of the Russians, and all the council approving of the disposition, orders were given for the march, for tools, fascines, *chevaux de frize*, &c.; and towards the evening of the 8th of July 1709, the Czar arrived in the presence of the King of Sweden.

This prince, although he was wounded at that time, nevertheless informed his general officers, that he intended to attack the Muscovite army the day following; and accordingly, having made the necessary dispositions, and

drawn up his troops, he marched a little before day-break.

The Czar had thrown up seven strong redoubts in his front, with two battalions posted in every one; behind which was all his infantry, having its flanks covered by his cavalry: in this disposition, therefore, it was impracticable to attack the Muscovite infantry, without having first carried the redoubts, because they could neither be avoided, nor was it possible, at the same time, to pass between any two of them, without being destroyed by their fire. The King of Sweden and his generals remained totally ignorant of this disposition, till the moment in which they saw it: but the machine, as it were, having been once put into motion, it was now impossible to stop it. The Swedish cavalry presently routed that of the Muscovites, and even pursued them too far; but their infantry was stopped by the redoubts, which made an obstinate resistance. Every military man knows the difficulty that usually attends the taking of a good redoubt; that it requires a disposition on purpose; that a great many battalions must be employed, in order to be able to attack it in several places at once; and that, after all, their success is extremely uncertain. Nevertheless, the Swedes carried three of these, although it was with difficulty; but they were repulsed at the others with great slaughter: all their infantry was broken and disordered, while that of the Muscovites, being drawn up in order at the distance of 200 paces,

paces, beheld the scene with great tranquillity. The King and the Swedish generals saw the danger in which they were involved, but the inactivity of the Muscovite infantry gave them some hopes of being able to make their retreat: it was absolutely impossible for them to do it with any regularity, for they were totally in confusion; however, as it was the only remaining step which they had to take, after having withdrawn their troops from the three redoubts they had carried, and from the attack of the others, they proceeded to put it in execution. In the mean time the Czar called together his general officers, and asked their advice concerning what was to be done at this conjuncture: upon which Monsieur Allart, one of the youngest amongst them, without even allowing time to any of the others to declare their sentiments, thus addressed himself to his sovereign. “If your Majesty does not attack the Swedes this instant, they will be gone, and you will lose the opportunity.” — This being acceded to, the line advanced in good order through the intervals between the redoubts, leaving them guarded to favour their retreat in case of an accident. — The Swedes had but just halted, to form their broken army, and to restore it to some order, when they saw the Muscovites at their heels. Nevertheless, confused as they were, they made an effort to return to the charge; but order, which is the soul of battle, being totally wanting, they were dispersed without opposition.

position. The Muscovites, not having been accustomed to conquer, were afraid to pursue them; so the Swedes retreated without molestation to the Boristhenes, where they were afterwards taken prisoners.

From hence it appears how practicable it is, by skilful dispositions, to render fortune favourable. If the Muscovites, who were at this time undisciplined, and dispirited likewise by an uninterrupted series of misfortunes, owed the victory to their redoubts, what success may not be expected from them, under the defence and direction of a nation experienced in war, and whose property it is to attack? If you act upon the defensive with them, you have, notwithstanding, as much advantage to the full as your enemy, by charging him by brigades, advanced in proportion as the redoubts are attacked. You can, moreover, renew the charge as often as you please, and always with fresh troops; which are waiting for your orders with impatience, and will make it with vigour, because they are exposed to public view, as well as supported; but above all, because they know their retreat is secure. It is incredible, with what a panic armies are sometimes seized; so far from being subject to which, you render yourself, if I may be allowed the expression, master of the favourable minute that is capable of deciding the event of battles; I mean that in which the enemy is in disorder. What an advantage therefore must it be, to be prepared for such an incident, with a  
certainty

certainty of its coming to pass?—The Muscovites neglected to reap the benefit of all those opportunities which the excellence of their disposition afforded them; for they calmly suffered three of their redoubts to be taken before their face, without attempting to succour them: A circumstance that must have discouraged those who defended them, have intimidated the rest of the troops, and have augmented the audacity of their enemy. One may therefore safely venture to say, that it was the disposition alone which conquered the Swedes in this action, without the Muscovite troops having contributed to the victory.

These redoubts are also the more advantageous, in that they require but little time for their construction, and are moreover useful on numberless occasions: a single one is frequently sufficient to stop a whole army in a close or confined situation; to prevent your being harassed, or insulted on some critical march; to cover one of your wings; to divide a piece of ground; or to occupy a larger quantity than the number of your troops will otherwise permit, &c.

*A calculation of the time, and the numbers of men required for the construction of a \* redoubt.*

The excavation of the ditch, being 144

\* See plate 7. fig. 40.

toifes, will require, including the trimmers \*,

			288 men.
To get fascines,	—	—	500
To get pickets,	—	—	300
To get palifades,	—	—	400
			<hr/>
Total			1488

Fourteen hundred and eighty-eight will therefore be able to throw up a redoubt in the space of five hours.

## C H A P. X.

### *Of spies and guides.*

ONE cannot bestow too much attention in the procuring of spies and guides. M. de Montecuculli says, that they serve as eyes to the head, and that they are equally as essential to a commander. Which observation of his is certainly very just. Money therefore should never be wanting, upon a proper occasion; for the acquisition of such as are good, is cheap at any price. They are to be taken

\* In the construction of the fort, in a preceding part of this work, the Marshal allows two diggers to one trimmer; and, according to his own calculation, the 288 men here mentioned, will be necessary only to dig the ditch of his redoubt within the time limited. This must therefore be a mistake, and there ought to be half as many more, *i. e.* 144, added for trimming; which makes the whole number amount to 1632, instead of 1488.



out of the country in which the war is carried on, selecting those only who are active and intelligent, and dispersing them every where; amongst the general officers of the enemy, amongst his sutlers, and, above all, amongst the purveyors of provisions; because their stores, magazines, and other preparations, furnish the best intelligence concerning his real design.

The spies are not to know one another; and are to consist of various ranks or orders; some to associate with the soldiers; others to follow the army, under the disguise of pedlars: but it is necessary that all of them should be admitted to the knowledge of some one belonging to the first order of their fraternity; from whom they may occasionally receive any thing that is to be conveyed to the general who pays them. This charge must be committed to one who is both faithful and ingenious; obliging him to render an account of himself every day, and guarding, as much as possible, against his being corrupted.

I shall not insist any longer upon this subject; which, upon the whole, is a detail that depends upon a great variety of circumstances, from which a general, by his prudence and intrigues, will be able to reap great advantages.

## C H A P. XI.

*Of Signs.*

**T**Here are certain signs in war, which it is necessary to study, and by which you may form judgments with a kind of certainty. The knowledge you have of the enemy, and of his customs, will contribute a great deal to this. But there are some, at the same time, which are common to all nations.

In a siege, for example, when, as the evening approaches, you discover towards the horizon, and upon the eminences, bodies of men assembled together and unemployed, with their front facing the town, you may take it for granted, that preparations are making for a considerable attack; because, upon such occasions, every different corps usually furnishes its proportion of men; by which means the assault is made known to the whole army, and all those who are unengaged, and off duty, resort to the high grounds towards the close of the day, in order to observe it from thence at their ease.

When your incampment is near that of the enemy, and you hear much firing in it, you may expect an engagement the day following, because the men are discharging, and cleaning their arms.

When there is any great motion in the enemy's army, it may be discerned by the clouds of  
of

of dust raised by it; which is, at the same time, a certain indication of something extraordinary being in agitation. The dust occasioned by foraging-parties, is not the same as that of columns in march: but then it is necessary that you should be able to distinguish the difference.

You may judge likewise which way the enemy directs his course, by the brightness of the arms, when the sun shines upon them. If its rays are perpendicular, he marches towards you; if they are varied and unfrequent, he retreats; if they dart from the right to the left, he is moving towards the left; and if, on the contrary, from the left to the right, his march is to the right. If there is a great quantity of dust in his camp, which appears to be general, and is not raised by foraging-parties, he is sending off his sutlers and baggage, and you may be assured that he will march himself presently after. This discovery furnishes you with an opportunity of making your dispositions to attack him on his march; because you ought to know, how far it is practicable for him to come to you; as also, whether that is his intention, and what way it is most probable he will march; of which you are to judge from his position, his magazines, his preparations, the situation, and, in short, from his conduct in general.—It is sometimes usual for him, to erect his ovens upon the right or left of his army: in which case, if you happen to be co-

vered by a small river, and in that situation, can discover the time of his baking any considerable quantity of bread, you can make some movement towards the side which is remote from his ovens, in order to amuse him ; after which you may suddenly return again, and send 10 or 12,000 men to attack them, supporting that detachment with your whole army, as fast as it arrives. This enterprise must be executed with so much expedition, as not to allow him time to prevent its success, because you will have the advantage of some hours, before your first movement can arrive at his knowledge, exclusive of what more time may elapse, between his intelligence and the confirmation of it ; for which he will undoubtedly wait, before he puts his army in motion : so that, in all probability, he may receive information of the attack of his magazine, before he has even given orders for his march.

There are an infinite number of such stratagems in war, which a skilful commander may put in practice, with little, or even no risk ; and whose consequences are equally as beneficial as those which attend a complete victory, by obliging the enemy either to attack him with a disadvantage, or shamefully to retreat from him, with an army even superior in strength.

C H A P. XII.

*Of the qualifications requisite for the commander in chief of an army.*

THE idea which I have formed to myself of the commander of an army, is far from being chimerical, but, on the contrary, is founded upon observation and experience. Of all the accomplishments, therefore, that are required for the composition of this exalted character, courage is the first; without which I make no account of the others, because they will then be rendered useless. The second is genius, which must be strong and fertile in expedients. The third is health.

He ought to possess a talent for sudden and happy resources; to have the art of penetrating into other men, and of remaining impenetrable himself. He should be endued with a capacity prepared for every thing; with activity, accompanied by judgment; with skill to make a proper choice upon all occasions; and with an exactness of discernment.

He ought to be mild in disposition, and free from all moroseness and ill-nature; to be a stranger to hatred; to punish without mercy, and especially those who are the most dear to him, but never through passion; to betray a constant concern at being reduced to the necessity of executing with rigor the rules of military discipline, and to have always before his eyes

eyes the example of Manlius \*. He should also banish that idea of cruelty which attends the infliction of punishments, and at the same time persuade both himself and others, that severity is a term misapplied for exemplary correction, and the necessary administration of the martial laws. With these qualifications, he will render himself beloved, feared, and, without doubt, obeyed.

His province is vastly extensive, comprehending the art of subsisting his army; of conducting it; of preserving it in such a state, as never to be obliged to engage contrary to his inclination; of chusing his posts; of forming his troops in a thousand different dispositions; and of seizing the advantage of that favourable minute which happens in all battles, and which is capable of determining their success. All these are circumstances of importance, and at the same time as various as the situations, and the accidents which produce them.——In order to discover these advantages on a day of action, it is necessary that he should be disengaged from all other kind of business. His examination of the ground, and of the disposition of his army, ought to be as quick as possible: his orders should be short and simple, as, for instance, *The first line shall attack, the second shall sustain!* and so on. The generals

\* There were several Romans of this name: but, from the subject in question, it is most natural to imagine the Marshal means T. Manlius Torquatus, who put his own son to death for fighting without his orders, although he was successful.

under his command must be persons of very shallow parts indeed, if they are at a loss how to execute them, or to perform the proper manœuvre in consequence of them, with their respective divisions. Thus the commander in chief will have no occasion to imbarraßs or perplex himself; for if he takes upon him to do the duty of the serjeant of the battle, and to be every where in person, he will resemble the fly in the fable, which had the vanity to think itself capable of driving a coach.—— Being therefore relieved from the hurry of the action, he will be able to make his observations better, will preserve his judgment more free, and be in a capacity to reap greater advantages from the different situations of the enemy's troops during the course of the engagement. When they are disordered, and a favourable occasion offers, he must repair with all speed to the place, take the first troops he finds at hand, and, advancing with rapidity, put them totally to the rout. These are the strokes which decide engagements, and win victories. I do not presume to point out exactly, either in what part, or in what manner this is to be accomplished, because it is what can only be demonstrated upon the spot, by reason of that variety of places and positions which the combat must produce. The whole is, to see the opportunity, and to know how to benefit by it.

Prince Eugene was particularly eminent in this branch of the art of war, which is the most sublime, and the greatest test of an elevated

vated genius. I have applied myself to the study of his character, and can venture to say, that I am not mistaken with regard to it upon this head.

Many commanders in chief are no otherwise employed in a day of action, than in making their troops march in a straight line ; in seeing that they keep their proper distances, in answering questions which their aids-de-camp come to ask, in sending them up and down, and in running about incessantly themselves : in short, they are desirous to do every thing, and at the same time do nothing. I look upon them in the light of persons who are confounded, and rendered incapable of discernment, and who do not know how to execute any other business than what they have been accustomed to all their lives ; by which I mean, the conducting of troops methodically. The reason of this defect is, because very few officers study the grand detail, but spend all their time in exercising the troops, from a weak supposition, that the military art consists alone in that branch. When therefore they arrive at the command of armies, they are totally perplexed ; and from their ignorance how to do what they ought, are very naturally led to do what they know.

The one of these branches, meaning discipline, and the method of fighting, is methodical ; the other is sublime : to conduct the latter of which, persons of ordinary abilities should by no means be appointed.

Unless



Unless a man is born with talents for war, and those talents moreover are brought to perfection, it is impossible for him ever to be more than an indifferent general. It is the same in other sciences: in painting, or in music, the professor must be indebted to nature, as well as art, in order to excel. This similitude extends to all things that pertain to the sublime; which is the reason that persons who are remarkably eminent in any science, are so scarce, and that whole ages pass away without producing even one. Application will refine the ideas, but can never give a soul; for that is the work of nature.

I have seen very good colonels become very bad generals: others again I have known, who were professed disciplinarians, and perfectly clever at the manœuvre of an army in camp; but if you took them from thence, to employ them against the enemy, they were absolutely unfit for the command of a thousand men; they would be confused to the last degree, and totally at a loss which way to turn themselves. If an officer of this stamp should come to command an army, as he would have no other resources than his dispositions, his views would extend no further than to secure himself by them: he would also be perpetually confounding the whole army with his orders to explain them, and to render them more intelligible. The least unexpected circumstance in war may make the greatest alterations necessary: if, in consequence, therefore, he should attempt to

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change

change his disposition, he will throw every thing into a dreadful confusion, and be infallibly defeated.

It is requisite, once for all, that one certain method of fighting should be established, with which the troops, as well as the generals who command them, ought to be well acquainted; by which I mean the general rules for an engagement; such as, the taking care to preserve their proper distances in the march; their charging with vigour; and the filling up with the second line any intervals that may happen in the first. But this does not require any demonstration upon paper; it is the A B C of the troops; for nothing is so easy; and generals ought by no means to pay such great attention to it as most of them usually do. It is much more essential in a commander to observe the countenance of the enemy, the movements he makes, and the posts he takes possession of; to endeavour, by a false alarm at one part, to draw away his troops from another, which he intends to attack; to disconcert him; to seize the advantage of every opportunity, and to make his efforts at the proper places. But then, to be capable of all this, it is necessary that he should preserve his judgment quite free, and disengaged from trivial circumstances.

Although I have dwelt so much upon the subject of general engagements, yet I am far from approving of them in practice, especially at the commencement of a war; and I am  
persuaded,

persuaded, that an able general might avoid them, and yet carry on the war as long as he pleased. Nothing reduces an enemy so much as that method of conduct, or is productive of so many advantages; for, by having frequent encounters with him, he will gradually decline, and at length be obliged to sculk, and avoid you. Nevertheless, I would not be understood to say, that an opportunity of bringing on a general action, in which you have all imaginable reason to expect the victory, ought to be neglected; but only to insinuate, that it is possible to make war, without trusting any thing to accident; which is the highest point of skill and perfection within the province of a general. If then circumstances are so much in your favour, as to induce you to come to an engagement, it is necessary, in the next place, that you should know how to reap the profits of the victory which is to follow; and, above all things, that you should not content yourself with being left master of the field of battle only, according to the custom which prevails at present. The maxim, That it is most prudent to suffer a defeated army to make its retreat, is very religiously observed; but is nevertheless founded upon a false principle: for you ought, on the contrary, to prosecute your victory, and to pursue the enemy to the utmost of your power. His retreat, which before perhaps was so regular and well conducted, will presently be converted into a confirmed rout. A detachment of 10,000 men

is sufficient to overthrow an army of 100,000, in flight; for nothing inspires so much terror; or occasions so much damage, as that precipitation which usually attends it, and from which the enemy is frequently a long time in recovering: but a great many generals avoid making the most of these opportunities, from an unwillingness to put an end to the war too soon.

I could find great numbers of examples to support what I have just been saying, if I was disposed to quote them; but, amongst the multitude, I shall content myself with the following.

As the French army, at the battle of Ramillies, was retreating in very good order over a piece of ground that was extremely narrow, and bordered on two sides by some deep hollows, the cavalry of the allies pursued it, at as slow a pace as if they were marching to an exercise; the French moving likewise very gently, and formed at the same time twenty deep, or perhaps more, on account of that narrowness of the ground which I have just taken notice of. In this situation, an English squadron approached two battalions of French, and begun firing upon them; who, imagining that they were going to be attacked, immediately came about, and made a general discharge; the noise of which so alarmed the whole French army, that the cavalry took to flight at full speed, and all the infantry precipitated itself into the two hollows with the utmost

utmost fear and confusion, infomuch that the ground was clear in an instant, and not a single person to be seen.

Can any one, therefore, after such an instance, presume to boast of the regularity and good order of retreats, or of the prudence of those who permit a vanquished enemy to make them unmolested? Commanding officers who conform to these tenets, make but bad servants, and promote very slowly the interests of their sovereign. Nevertheless, I do not say they ought to give themselves totally up to the pursuit, and to follow the enemy with all their forces; but only to detach proper bodies, with instructions to pursue as long as the day lasts, and, at the same time, to keep themselves constantly in good order: because, after his troops have once taken to flight, they may be driven before them, like a flock of sheep. If the officer who is detached upon such an occasion, piques himself upon the regularity of his disposition, and the precautions of his march, it answers no purpose to have sent him; his business is, to push forwards, and to attack incessantly; for it is impossible that any manœuvres can fail, but those which take up time, and give respite to the enemy.

Thus, without here referring the subject of retreats to a particular chapter, I shall conclude with observing, that they depend entirely upon the capacity of the generals, who conduct them, and upon the different circumstances and situations by which they are attended.

Upon

Upon the whole, a regular retreat is impracticable, except a conqueror is guilty of remissness in prosecuting his victory ; for if he exerts himself properly in the pursuit, it will very soon be converted into a thorough flight.

LET-

# L E T T E R S.

*From the King of POLAND to Marshal SAXE.*

**I** HAVE a great inclination to raise a body of light horse. The regiment of hussars which I formerly had, were very far from being remarkable for their good behaviour in the war of the confederates in Poland ; nevertheless the Prince of Weissenfels, and other general officers who have served in Flanders, tell of marvellous feats that have been performed by hussars, and earnestly urge my raising a regiment of them. I am of opinion, that troops of Walachians will answer much better ; for the twelve which you saw in Pomerania in 1713 or 1714, have always behaved extremely well ; and I have heard great encomiums upon those which the King of Sweden had with him in Norway ; so that I am rather inclined to give them the preference, and this the more, because they are attended with less difficulty in raising, are less subject to desertion, and their horses are better. That dislike which my generals betray to them, proceeds, I believe, from the circumstance of their resembling the Polish troops, and you are no stranger to their aversion for those. I could not avoid taking notice, that as often as this subject was debated upon in your company, you remained silent ; and, as I cannot attribute  
that

that to ignorance, but imagine you must have some thoughts concerning the establishment and use of light horse, I must beg therefore that you will favour me with them, before I come to a determination about the raising of them.

*Dresden, May 20. 1732.*

AUGUSTUS.

*The ANSWER.*

S I R,

I WAS honoured with your Majesty's letter, bearing date the 20th of last month. My silence in the conversation which passed upon the subject of light horse, proceeded from my ideas concerning the importance of the object: but, in compliance with your Majesty's commands, I shall now speak my sentiments with that martial freedom, which you are so good as to require of those whom you condescend to admit to your friendship.

An army unprovided with light horse, or not having a sufficient number to oppose against those of the enemy, may be compared to a man armed *cap à pié*, who is to encounter a troop of schoolboys, without any other offensive weapons than clods of earth. This Hercules will presently be obliged to retire, struggling for want of breath, and confounded with shame.

In 1713, your Majesty had twelve troops of  
Walachians,



Walachians, which performed great things, because the Swedes had no light horse ; which was what gave us the superiority over them in the field ; for the Walachians were perpetually insulting even their grand guards : our forages and pastures were never exposed to the least interruption or danger, whilst theirs were frequently attacked ; neither could they make any detachments of which we had not immediate intelligence, and were in a capacity to defeat ; at the same time that they, notwithstanding the war was carried on in their own country, remained totally ignorant of ours.— Thus, Sir, you see what occasioned our superiority in the field, and that it ought to be attributed to nothing but the light horse.

The King of Sweden was sensible of this, and procured from Turkey some troops of Walachians, which were supposed to be the ruin of the Danes in Norway, because they had no light horse to oppose them.

Your Majesty's general officers have persuaded you to send back the twelve troops of Walachians, and to raise, in their stead, a regiment of hussars ; which your Majesty objects to, on account of the appearance of their having behaved ill during the confederacy in Poland, in the year 1715 : but the reason of that is evident ; which is, that all the Polish cavalry is light, and that, if hussars are opposed against hussars, the superiority of numbers on either side must decide the victory. Thus I have sometimes seen our hussars afraid to ven-

ture as far as a thousand paces, beyond the grand guards ; and when we have made a detachment to support them, even that has been soon after surrounded by the Polish horse, and obliged perhaps to retreat engaging, for several leagues together : our forages were frequently alarmed ; our convoys and baggage always attacked on their march ; and we perpetually under arms, without knowing any thing of the enemy, but when we saw him ; which are circumstances that at length must ruin an army ; and which seem at the same time to demonstrate, that however palpable any defects may be, the force of custom is so great, that there is no departing from it, to remedy them.—The general officers of your Majesty's army have lately recommended the levy of a body of hussars, because they experienced the use of them in Flanders ; but a war with France is the very triumph of hussars, because the French have only a handful of them in their armies, and the Emperor has always five or six thousand. This is the reason why the Imperialists had that superiority in the field, just above mentioned ; which, if superficially considered only, does not perhaps appear to be of such great importance ; but is notwithstanding of the utmost, in its effects ; for without that, all the detachments you send out \*, are in danger of being attacked and defeated ;

\* The Marshal here alludes to M. de Cerizy's detachment during the siege of Philippsburg, and to M. Berchivi's near Mentz after the siege, in 1734.

because

because the enemy, having intelligence of every motion you make, will be thereby always enabled to oppose them with greater. The Emperor's hussars moreover are perpetually within sight of your grand guards, and observe all that passes in the camp; if you make a movement of any kind, they send immediate intelligence of it from the spot; and if you have a single party of horse abroad, they discover it; whereas theirs patrol about your army with all security; a circumstance which is dangerous for you to attempt, because your irregulars are not sufficient in numbers to cover the country, and to gain the superiority in the field: they also pick up your deserters, and all sorts of persons whom they find coming from your army, which renders it difficult for your spies to pass undiscovered; and at the same time they deprive you thus of the means of getting intelligence with any frequency, which is a very essential point; they likewise prevent desertion amongst their own troops.—Their superiority moreover furnishes them with an easy opportunity of sending, together with the hussars, skilful officers to reconnoitre your posts, who, by examining your situation, may be able to form projects, very dangerous to your army.

The affair of Luzzara in 1702, appears to me quite strange, and unprecedented; for all the wars of antiquity do not supply us with any instance, of one army lying in ambuscade at the distance of only a hundred paces from the other, waiting, without fire-arms, for the

favourable minute, in which it was to attack the enemy's camp.

But, notwithstanding these encomiums which have been bestowed upon the Emperor's hussars, the Turks are much superior to them, both in lightness and numbers; insomuch that, when I was in Hungary, we never marched but in the greatest fear and uncertainty, had no manner of intelligence concerning the Turks, and these boasted hussars at the same time durst not venture out of sight of our grand guards; which are circumstances extremely dangerous to an army; because one is exposed to a multiplicity of accidents and inconveniencies, when totally deprived of power to guard against them, by the means of information. Ten thousand men may impose themselves upon a general, who is inferior in the field, for the whole army, provided the commanding officer executes his part, upon such an occasion, with proper skill and assurance. In short, without this superiority in the field, one marches as much in the dark, in a manner, as the blind.

But a superior number of light horse is, notwithstanding, far from being the most eligible remedy to obviate all these inconveniencies, because they are attended with a great expence; and, as you are not to lay any stress or dependence upon them for solidity, do not add to your strength in cavalry on the day of action. Large bodies of them upon the flanks of your army, are even dangerous; which we have but too often experienced, in the war  
with

with the Swedes in Poland, and that even at the battle of Kalish\*, which your Majesty is very sensible of. It is necessary therefore to have recourse to other measures. The French have established certain bodies of light horse, under the name of *free Companies*, to remedy these evils; which are posted in houses, in the environs of their camps, from whence they make some excursions: but, being no better mounted than dragoons, they are incapable of moving much from their quarters. And although they may contribute a little towards the ease and relief of the army, yet they are far from answering the purpose effectually.

There is not a sovereign in Europe, who has it so much in his power to establish an excellent body of light horse, as your Majesty. Your troops have been accustomed for these twenty-six years past, in different wars, to fight against light horse, and to contend with superior numbers. The grand point is, to keep steady, and maintain their ground; which method of behaviour they have naturally learned, from a consciousness of the impossibility of flying upon horses so large and heavy as theirs. If they were mounted upon light horses, and lightly accoutred, I am persuaded they would presently put a stop to the insults of the enemy's irregulars, which proceed from nothing but the impunity that attends them, and the facility of their flight. To prove which, I shall beg leave to introduce the following example.

\* The King of Poland was present at this battle.

At the camp of — in Italy, M. de Vendome being provoked at the enemy's hussars, who appeared every day in great numbers in the front of his incampment, declared he would fall upon some measures to chastise their insolence ; upon which an officer belonging to the Spanish cavalry proposed to rid him very soon of them, provided he would permit a regiment to be sent for from the Spanish army, which was then incamped but a little way off. M. de Vendome consenting, the regiment arrived the same evening ; and being disincumbered from its baggage, was, before day-break, posted in ambuscade in the rear of the grand guards. The day after, the hussars came as usual again, when the Spaniards sallied out at full speed from their different quarters, and with their long swords made a dreadful havoc amongst them. The effect of this was, that not a single hussar was seen during the remainder of the campaign : which makes it evident, that they will never approach an enemy, but when they imagine it may be done with impunity. Their manner of retreat, moreover, is a precipitate flight ; whereas they ought to retire slowly, and be able to engage at the same time ; which is what your Majesty's troops have been habituated to by long practice. A hundred of your horse will make a retreat in the presence of a multitude of these irregulars, because they have acquired experience, from an uninterrupted succession of events, and have learned to act from principle.

If

If then your Majesty approves of my reflections upon this subject, a thousand of the shortest-sized men must be chosen out of all your army, and such officers appointed to command them as are noted for courage, skill, and understanding. They must be formed into twelve troops; according to which division, a troop will consist of about eighty: so that if, by any means, there should happen to be a future deficiency of even thirty, there will still remain fifty; which is the usual number of a troop of cavalry in time of war, in all regular services.

I have already observed, that the smallest-sized men are the best; because it has frequently been proved, that a horse which will carry a man thirty leagues in a day, whose weight does not exceed eight or nine stone, which is usually about that of a man of five feet two inches high, will hardly be able to carry one of from ten to twelve stone, half the same distance; and, in swiftness, will lose from a hundred to a hundred and fifty paces in a thousand.

All their arms, as well as accoutrements, are to be extremely light. With regard to horses, your Majesty may furnish yourself with very good ones out of the strings brought by the Walachian dealers to Otakir, from Rougiac, from Lower Arabia, and from Romelic, which are infinitely better, swifter, larger, and higher-mettled, than the Hungarian ones: neither will they cost more than those from  
Holstein,

Holstein, which are made use of in the Saxon cavalry.

The advantage resulting to your Majesty from the establishment of such a corps, will be very considerable; because, although it is light horse, yet it will have the solidity of your best regiments, and be very well able to fight, either on foot or horseback. But it ought not to do duty in the army; because, if it be obliged to incamp in the line, to furnish escorts, covering-parties, grand guards, and foraging-parties, it will be impossible for it to answer the purpose for which it is intended. It must always have several parties abroad, to reconnoitre where-ever the commander in chief shall order: and when the colonel of it has any projects in view, he is first to apply to him for his permission to put them in execution; after having obtained which, he must be left entirely to his own discretion, and be by no means circumscribed or constrained in his measures.

Many generals are deterred from attempting enterprizes which are very practicable, from an apprehension that their reputation depends upon the event: for which reason, I would recommend it to your Majesty, to have this regiment distinguished by the name of *voluntiers*; which answers to the idea of free companies, upon the French establishment. When the army is to decamp, they are to march off with the quartermasters and camp-colour men, in order to scour the country: but



but if the ground is such as not to permit their marching in the same route, they must be left to chuse another for themselves; so that they take care not to fall in with the army, but rather to make a little excursion of a few leagues out of their way.

The ground for their incampment in the environs of the army, should be left to their own choice, with regard to its nearness to water, wood, pastures, and the driness of the situation; for all these things contribute to the preservation of such a regiment, and support it in proper order for the laborious service that is required of it. If there are any towns, walls, or houses, within about a league's distance, in the front of the camp, it may be posted there: in which situation the army will remain at ease, and free from alarms; because no light horse belonging to the adversary will dare to pass it; and to attack it, will be a very dangerous undertaking, as it must be instantly sustained by the pickets. The enemy could not possibly make any such attempt, without being exposed to the worst consequences; of which the affair of Moskolini's villa in Italy is a melancholy instance, where Prince Alexander of Wurtemberg sacrificed the lives of so many brave fellows to no purpose. — But I am always falling into digressions. Nevertheless, your Majesty will perhaps excuse them, as they proceed from the importance of our subject, and my great opinion of the usefulness of this corps, which I am recommending.

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If your Majesty is convinced, you ought not to defer the raising of it till you have a war; because a new regiment, composed entirely of recruits, has no manner of steadiness or solidity; of which it is impossible that this can have too much. If, therefore, the forming of it is postponed till the moment in which you want it, your money will be only thrown away, and your expectations at the same time disappointed.

MAURICE de SAXE.

*Conclusion of one of the Count's letters to a friend,  
on the foregoing subject.*

MY letter was shewn, and criticised upon by all the general officers: nevertheless, I have all the reason to think, it was agreeable to the King, both by the answer which I received from him, and by the raising of the regiment, which was presently after begun. During these transactions the King died; but the Elector of Saxony continued the levy; and, moreover, approved so much of the plan, as to form two regiments upon it; one of which was conferred upon M. Sibilski, and the other upon M. de Milekau; two officers of irreproachable credit. The inferior officers were furnished, in equal proportions, by all the troops; and the number of small-sized men amongst them not being sufficient to complete them, about 600 hunters were added, to make up the deficiency. These two regiments, to  
which

which they gave the name of *light horse*, sustained all the drudgery of the war in Poland. But the most remarkable exploit they performed, is that which I am going to relate.

The Palatine Tarlo was field-marshal of the confederate army for King Stanislaus of Poland, and might have about 22 or 23,000 of the troops of that republic under his command. As Saxony was not very strongly guarded, and as the Saxon troops were likewise at this time dispersed in different quarters all along the Vistula; the Palatine flattered himself, that it would be very easy to invade Saxony at Chargau, where there was only a post of 150 men. The Prince of Saxe-Weissenfels, who foresaw his design, went with all expedition to Posen in Poland, which is twenty-four leagues distant from Chargau; where having assembled the two regiments of light horse, and about 1200 of the heavy cavalry, he put himself at their head, and, by forced marches, soon came up with the Palatine, who had been retarded a day in the taking of Chargau; immediately after which, he attacked him, routed him, and pursued him for thirty leagues. The Palatine in this action lost all his artillery and baggage; and the remains of his troops were so much dispersed, that it was with great difficulty that he himself escaped, together with fifty of them, to Koningsburg. The 1200 heavy horse were only present at the first charge, because they were never able to overtake the light horse,

who continued firing and pursuing incessantly for two days ; and who made dreadful havoc amongst the Polanders, crouded and imbarassed in the defiles, which they were forced to pass in their retreat.

When the troubles in Poland were put an end to, King Augustus was obliged to send his Saxon troops back to their own country ; and not being able, according to the established laws of the realm, to keep more than 1400 Saxons for his guard, he gave these two regiments of light horse the preference over all the rest of his troops, reduced them to 600 each, and sending the remainder into Saxony, completed them to the stipulated number, with the addition of 200 of his guards.

In the month of April 1740, I proposed to the court of France, to bring over one of the regiments into the King's service, which the King of Poland would have given me ; and I required no more than twenty-five livres *per* month for the recruiting-fund of the whole regiment, from the colonel down to the drummer ; offering, at the same time, to bring them as far as Landau, at my own expence.

MAURICE DE SAXE.

*To M. DE FOLARD.*

ONE cannot fail, my dear Chevalier, of being highly instructed, as well as entertained, in a correspondence with you upon military matters ; which subject you treat in the sublime,

sublime, with a grace and authority peculiar to yourself.

I have here sent you the sequel of my account of our transactions.

I arrived before Prague the 18th of November; and on the 20th the Saxons joined us, to the amount of 20,000 of the best and lightest troops. M. de Gassion likewise arrived with his command the same day; so that I was upon the right, M. de Gassion in the centre, and the Saxons upon the left, whose heavy artillery was left twelve leagues behind, for want of horses to draw it. The first days were spent in reconnoitring the place. The 22d I wrote the following answer to a letter which I received from the Elector.

*S I R,*

I received the honour of your Electoral Highness's commands to make a detachment of 1000 horse, 600 dragoons, and 5 or 600 foot, with some hussars, in order to pass the river Moldaw, and to raise a contribution of forage for a magazine at Conigsaal. I should obey these your Highness's orders; but my bridge upon the Moldaw not being completed, I should run the risk of losing these troops, if they were obliged by any accident to retreat; especially as it is not improbable, but the advanced guard of the enemy will arrive to-morrow: I cannot therefore send this body to the other side of the river, without exposing it to apparent danger. If the enemy is there, he will

will certainly be superior, and prevent my being able to procure this forage; if, on the other hand, he is not there, a detachment of 300 horse, which has passed the river to-day by my orders, under the command of M. de Beauveaux, will reduce the inhabitants to a necessity of providing it, together with a sufficient number of carriages to convey it afterwards to the proper place.

I shall not trouble your Highness with any further account of the inconveniencies that would have attended the making of this detachment; but shall take the liberty to make a sudden transition to a higher detail, concerning our situation.

Your Highness will be so good as to recollect, that when we were at St Hyppolite, I assumed the freedom to say, that we ought to take post upon the Danube, at Crems, and to fortify the two sides of the bridge which was erected there; that, by so doing, we should prevent M. de Neuperg from taking post at Tabor, and facilitate the siege of Prague by M. de Gassion and the Saxons, which would then be carried on, without the enemy's daring in the least to oppose it; and that, by such a disposition, we should be enabled to preserve the conquest which we came to make of Upper Austria.

Your Highness thought proper to retire from the environs of Vienna, and march to Budweis, and from thence to Prague: but you will please to recollect, how much I objected  
against

against this proceeding, and pressed the necessity of our taking post upon the Tabor.— You was too precipitate in coming before Prague; are unacquainted with places from your own knowledge, and have abandoned a post of great importance without necessity; insomuch that the loss of Upper Austria will be the consequence, and we shall be deprived of the conquest of Bohemia, unless we repair the fault by an immediate change of conduct.

We have at present near 40,000 men; we must therefore to-morrow throw bridges over the Moldaw, and march to meet the enemy, who is advancing towards Prague. With all this force we have nothing to fear, and shall be in a capacity to make such dispositions, as will enable us to wait the arrival of M. de Leuvitte's command, and of the Bavarians, who will join us in six days: we shall then have the superiority in numbers, as well as in the quality of our troops. The reduction of Prague, and of Bohemia; the preservation of Upper Austria, and its provinces, and of the army, will be the consequence of this step; which if you defer taking, the want of subsistence will soon oblige you to abandon Bohemia, and to retreat into Bavaria; where the same grievance will still subsist, and occasion the destruction of both the French troops and your own.

Excuse, Sir, the freedom I have taken, in making these representations; but I thought them necessary, because it appeared to me,  
that

that you was inclined to intrench yourself, and to defend the Moldaw ; which is a proceeding that may be attended with the most fatal consequences.

I am, with respect, &c.

In the night of the 24th, his Highness sent me the following order.

**C**OUNT Saxe will be so good as to pass the Moldaw as early to-morrow morning as he possibly can, and march as far as he shall think it consistent with prudence to venture ; after which he will try to get what intelligence he can of the enemy, and transmit the same to his Electoral Highness. He will also endeavour to collect at the bridge of Konigsaal the necessary quantity of forage, grain, and meal, as likewise that of cattle.

He will take with him all the horse and dragoons that are in proper order to march, leaving their tents, baggage, and standards, behind : he will be followed by 700 foot, in which are included four companies of grenadiers : he will give orders for his men to be provided with bread for four days ; and in case he has not a sufficient quantity for such a supply, he must send advice thereof to M. de Sechelles, who will furnish the deficiency.

He will take with him one of the marshals de camp, and will remain on the other side of the Moldaw, as far advanced towards the enemy as he can without danger : he will also to-morrow



morrow order out a detachment, composed of the Saxon infantry, and 1200 horse, to cover the high road towards the hill of Kuttensburg. The Count will be so good as to concert measures with the commanding officer of his detachment, and keep up a communication with him, that they may be a mutual support to each other, in case of need.

The hussars being to arrive to-morrow, or the day after, will march to join the detachment of Saxons, from which 200 are to be sent to that of Count Saxe.

A duplicate of this order has been sent to Count Rudowski, that he may likewise be enabled to act on his side conformably to the measures which are taken.

The following is the answer which I wrote to his Highness.

*S I R,*

I Received your Electoral Highness's commands, which I shall take care to put in execution: but you should have indulged me with one of your commissaries; for I freely acknowledge, that I am quite ignorant with regard to their province; and more especially too, as all my attention must be taken up in opposing the enemy when he arrives, which will probably be to-morrow, or the day after. Let every man be employed according to his proper profession. For my part, I cannot persuade myself, that the principal intention

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of

of my being ordered upon this command is to raise contributions. The study to prevent the enemy from throwing succours into Prague, to stop the progress of his advanced parties, so as to oblige him to assemble his whole army, and to gain time for your taking that place, appears to me more essential, and will engage the utmost of my little capacity.

If, by means of my expedition, it was practicable to obtain the forage and cattle that you demand, I believe it would be of service to us: but the situation of things is too critical for me to be able to attend to that, and at the same time to retard the approach of the enemy. Be so good therefore as to allow me a capable commissary, on whom it may more immediately depend; or, in order to render that unnecessary, take Prague, and there you will have every thing in abundance.

I have the honour to subscribe myself, &c.

Early in the morning of the 25th I passed the Moldaw, between Konigsaal and Prague, with sixteen troops of carabineers, twelve of horse, twelve of dragoons, four companies of grenadiers, and 800 battalion-men: but I had no sooner passed the bridge, than I received intelligence, that 14,000 of the Queen of Hungary's troops were advancing by forced marches, expected to enter Prague the day following, and were followed by the enemy's whole army; upon which I immediately wrote the following note to the Elector.

S I R,

S I R,

I Have just now received intelligence, that 14,000 men are intended to be thrown into Prague to-morrow; we have therefore no other resource remaining than to escalade it. The 2000 men that compose the garrison will not be sufficient to resist our efforts, if we attack it in four different places at once: and with regard to the inhabitants that have been armed, although their numbers may be large, yet we ought by no means to be deterred from the enterprize by them. — If then your Highness will assign two attacks to the Saxons, the one on your side, and the other by the detachment which you ordered to cross the Moldaw, and that passed it, I imagine, about the same time that I did; I will make the third on my side; and M. de Gassion, with his command, will make the fourth. If this project is not agreeable to your Highness, I will march to meet the Hungarian troops; and in case I find myself unable to maintain my ground against them, I shall retreat towards the bridge of the Saxons, leaving Prague upon my left; because it will be impossible to repass the river over that which is between Konigsaal and Prague. The Saxons must be ordered not to march too far, lest they should be cut off by the body of the enemy that pursues me.

I am, with respect, &c.

I then marched to Kundratitze, and from thence arrived, at two o'clock in the afternoon,

before Prague, in order to reconnoitre the place, and to determine where I should make my attack : immediately after which, I received the following billet from the Elector.

*S I R,*

**I** Defer answering yours any further, than just to inform you, that the bridge of the Saxons cannot be finished till to-morrow evening, at soonest ; but I would not have you depend upon it till the day after, for fear of a disappointment.

I am, Sir, with the greatest esteem, yours, &c.

I immediately wrote the following answer.

**A**S the bridge of the Saxons will not be completed till to-morrow, I shall march to meet the enemy upon the road from Tabor, in order to prevent his advancing as much as I possibly can. It is so cold, that I can scarcely either hold my pen, or read what I have writ ; I must therefore beg you'll excuse it ; and am, with respect, &c.

I directly sent back M. de Mirepoix, with 1000 foot, to the bridge which I had passed, with orders to intrench himself upon an eminence that is opposite to the head of it ; the intention of which was, that in case I was pursued, I might be able to retreat, and to pass the river under cover of his fire. — I marched back with the cavalry to Kundratitze, to pass

pass the night there, knowing it to be a very good post for cavalry; from whence I detached some advanced parties on the road towards the enemy. At six in the evening, I received the following order from the Elector.

**T**HE bridge of the Saxons not being finished, Count Saxe will not be able to make his retreat that way.—We have determined to make a real attack at the port of Carsthor, and hope to carry it; in case it does not succeed, it will pass for a feint. Our troops are to file off at night into the defiles, that they may be in readiness to begin the assault, at two or three in the morning: but we shall wait for two false attacks, that are to be made by the French, and Count Saxe an hour before, in order to draw off the greatest part of the garrison from the port of Carsthor, where a picket-guard of a thousand men mounts every night.—At the bottom of the order was added,

I beg, Sir, you'll conform to these instructions, and not fail to make your assault, either false or real, according as you shall think proper, so that it be with a prospect of succeeding, and consequently without exposing the troops unnecessarily.

Upon this I immediately recalled M. de Mirepoix, collected some ladders, and prepared two beams with cords, to serve by way of a battering-ram. As soon as M. de Mirepoix arrived

arrived with his detachment, we marched towards Prague.

As the part which I had before begun to reconnoitre was too strong, being the citadel, I moved on till I came to the port Neuthor. I made my disposition as I marched along ; and as I approached the town, I heard M. de Gassion's attack, at which time it might be about one o'clock. I then halted, and while the ladders were distributing, together with the powder and ball, I advanced, with Colonel de Chevert, to examine where we should make our attack. I conveyed myself into the ditch, which had no revetement on this side : near Neuthor I found a bastion, thirty-five feet high, and reveted with brick ; a ravelin upon the curtain, with two draw-bridges ; opposite to which there was a kind of plat-form, occasioned by the rubbish and dung of the city, that was near as high as the level of the rampart. As I was pressed in point of time, M. de Gassion having already made his attack, I could not stay to reconnoitre the place any further ; and as our ladders were long enough to reach the top of the wall, I resolved to escalade it by the flank of the bastion of that polygon, which was next to the port. I told M. de Chevert, that I should cover his assault with a fire from the plat-form opposite, and that I should, at the same time, attack the draw-bridge, and the ravelin. We were now returned to the troops, having done all this with so much silence, that the sentries did not discover

cover us. I then dismounted 600 dragoons, and 400 carabiniers ; and having twenty troops of horse remaining, I posted them upon the high road, with orders to hold themselves in readiness to march into the town, the moment that I had forced the gate.

The ladders being distributed amongst the first grenadiers, I ordered the first serjeant to mount with eight of them, and not to fire at all, whatsoever should happen ; but to stab the sentries, if they possibly could, and to defend themselves with their fixed bayonets, if they met with any opposition upon the rampart. M. de Chevert, with the four companies of grenadiers, was followed by four troops of dragoons, and the pickets of the infantry. The serjeant mounted according to his orders, without being seen by the sentries, till he had gained the top of the rampart ; upon which the enemy hastened to the charge, fired a great deal, and came to close quarters with our grenadiers, who defended themselves with their fixed bayonets, and maintained their ground very obstinately, till M. de Chevert had mounted, who was presently followed by the four companies of grenadiers, and the remainder of the detachment : but as they were in a great hurry to enter, and crowded too much upon the ladders, a great many of them broke ; which accident might have been attended with very bad consequences ; however, I immediately sent an officer to reinstate matters, and to regulate the escalade ; after which I hastened

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ed to the draw-bridge, and the gate, with eight troops of dragoons, whose fire had served to cover M. de Chevert's assault, and with the carabiniers; giving orders, at the same time, for the pickets of infantry to supply their place. The moment I entered the ravelin, and was advancing towards the gate, Chevert having forced the guard-house from behind, let down the draw-bridge for me; that which led to the ravelin, was also let down at the same instant, and I made the twenty troops of horse enter at full speed, in order to take possession of the streets. I had commanded the officers to put every man to death who dismounted to plunder; and likewise all the foot-soldiers whom they found dispersed about the streets, of which I took care beforehand to advertise the infantry, as well as the dragoons, and carabiniers, whom I had dismounted, in order to prevent disorders.

The moment we had thus entered the town, the Saxons begun their two assaults at the appointed quarters with a very great fire. I left eight troops of dragoons at the port; lodged the pickets in the adjoining houses; posted two troops of dragoons on each side, upon the rampart, to cover my flanks; and marched with the four companies of grenadiers, and the horse, directly to the bridge of the city, in order to favour the entrance of the Saxons, whose attack was still continued with great vigour. When I arrived at the town-house, I found the Governor, who offered me the keys  
of



of the city ; immediately after which, an aide-de-camp from Marshal Ogilvie, to inform me, that he surrendered himself my prisoner. I marched on to the bridge, and, having secured the possession of it, waited upon Marshal Ogilvie, of whom, after the usual civilities were passed, I demanded an order, for the commandant of the citadel to deliver it up, which he gave me ; I therefore immediately took possession of it, and the Saxons entered a few minutes after.

Prague is one of the largest cities in Europe, and requires above twenty battalions to defend it : the present garrison consisted of only 2000 soldiers, with 6000 armed citizens. It was taken the same day on which my grandfather took it in 1640 ; and furnishes the first instance of a town being carried, in the night-time, and sword-in-hand, by the French, without being plundered.

*Prague, Nov. 28.*  
1741.

MAURICE de SAXE.

*P. S.* I have just received the following order from the Elector, which shews how well I was informed concerning the approach and designs of the enemy, and likewise what little time we had to lose.

*S I R,*

**Y**OU will march with your detachment towards the enemy, at break of day tomorrow,  
K k

morrow. It is proper that you should know, for your instruction, that the main body of the enemy was this day at Forchiel, Dnespech, and Beneschau, with the Duke of Lorrain; and that a thousand Croats, and some horse, were advanced, with an intention to be thrown into Prague, the very day we carried it. You will therefore take your measures so as not to expose yourself to any danger of being cut off. I am, Sir, your's, &c.

*To the same.*

I Have been silent for a long time, my dear Chevalier, and it is also a long time since I have heard from you. But the fault lies on my side, and I freely acknowledge it. Having been in a perpetual scene of hurry and trouble, I was unwilling to make my distresses the subject of a letter; for my heart is too free and sincere, to avoid disclosing itself when I am writing to you; and this has been the occasion of my silence.

I am now at Deckendorf; and command in this country, since our army passed the Danube at Staramhol. I have obliged the enemy first to quit Ober-Altach, and afterwards this post, by a stratagem pleasant enough; of which the following are the particulars.

I knew the enemy had some hussars and light infantry in the passes and defiles between Ober-Altach and me; but as their numbers  
were

were small, I imagined they were only posted there, to give intelligence of my coming, and that they would retire at my approach. Accordingly, I collected at Straubing a sufficient number of boats for eleven battalions, which I intended to convey upon the Danube beyond all their posts, and to disembark below Deckendorf, in order to cut off the retreat of the two battalions that were there, and to prevent any thing from escaping. I had sent, the 24th of last month, different parties all along the river Regen, with orders to reassemble at the Danube the 2d of this month; on which day I embarked them, and detached my cavalry, together with some infantry, to attack the enemy's posts upon the borders of the Danube, and to draw off their attention that way. During this time, I fell down the tide, and arrived before Deckendorf, without the garrison's knowing any thing of it till I appeared in sight. And I should have succeeded completely, if an accident had not happened to one of the boats, loaded with four companies of grenadiers, which split against a pile, and thereby detaining us for an hour, hindered our arriving at Deckendorf till it was growing dark: And as there still remained in the river, the piles of a bridge which I had burnt this summer, I was afraid to risk the passage of the boats, thus loaded with troops, in the night-time; and therefore was obliged to land them above the town, which gave time to the greatest part of the garrison to escape by flight.

However, we took all their baggage, and a few hundred prisoners.

But these are far from being the only advantages resulting from the enterprise ; for this post served to cover the enemy's magazines upon the banks of the Danube, which have been totally abandoned, and have fallen, together with all their escorts and covering-parties, into the hands of my detachments. In one place, we took two hundred and fifty waggons ; in another, a hundred and fifty thousand rations of biscuit ; in a third, pontoons upon their carriages ; in a fourth, a thousand barrels of meal ; and prisoners every where : in short, the whole country between this and Passau was cleared in two days. The enemy, moreover, having intended to lay siege to Bruneau, had furnished themselves with some artillery from Passau for that purpose, which they have sent back again in the greatest hurry, and have also augmented its garrison, which before consisted of only six hundred men.

These are the circumstances that have attended this adventure ; which I communicate to you, because I doubt not but they will afford you some entertainment.

MAURICE de SAXE.

REFLEC-

## REFLECTIONS upon the propagation of the human species\*.

**A**FTER having treated of a science which teaches us the method of destroying the human race, I am now going to propose the means proper for facilitating the propagation of it.

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\* My intention at first was, not to have given these reflections to the public: but it is what I am at length resolved to do, in order to shew, how little they deserve that imputation of weakness and infamy which has been cast upon them by certain persons; some who have never read them, and who have no other authority for what they pretend to know, than barely hearsay. On the contrary, it will appear, that all the author advances upon this subject, proceeds from a good intention; and from an opinion, that to banish libertinism and debauchery, would be one method of promoting the propagation of the human race. If therefore he happens to be mistaken in his argument, can his error be reasonably considered as a crime?

I believe all the world will concur with me in opinion, that Marshal Saxe was a greater general than he was a civilian; and that these limited marriages which he recommends, instead of doing good, would, on the contrary, make a dreadful confusion amongst society; for how many children, void of both fortune and education, would perish through want, when abandoned by the caprice of their parents? Would it not be much better, for the world to be only inhabited by a few, who would enjoy ease and abundance, rather than by a multitude of wretches and vagabonds, who would renew the ravages of those barbarous nations which over-run and depopulated all Europe? This liberty, moreover, of separation after marriage, is of very little consequence with regard to propagation; for it is no more than what is secretly practised in these times, although it may want the sanction of a law to confirm it. If mankind diminishes in number, let us not attribute the cause of it

There is no kind of subject whatsoever, which does not sometimes occur to one's re-

it to the fetters of marriage; for, alas! there is nothing to which we now-a-days make ourselves so little slaves, as to conjugal fidelity.

In former times, epidemical diseases prevailed, such as, the plague and leprosy, which made dreadful havock amongst mankind; and that which passes under the name of *venereal*, only replaces others that are now unknown to us. But all these calamities, to which human nature has been exposed, have never made such desolation in the world, or have been such enemies to propagation, as that contagious malady which reigns at present; by which I mean luxury. Formerly it was confined to the palaces of the great, but now it prevails even in cottages; and is that which multiplies our wants, and renders children a burden to their parents, because their maintenance and education become thereby attended with extraordinary expences. We were much happier in those times, when plainness and frugality were not accounted dishonourable. The son of a peasant is now brought up with more pride and delicacy than a prince.

If, moreover, we consider the prodigious number of persons, who live in a state of celibacy, from the pretence of being unwilling to leave children poor and unprovided for, we shall find it to be one of the causes that contributes most to the diminution of the human species.

But, upon the whole, if we reflect how much all nature is subject to revolutions, we shall be induced to imagine, that there are some ages, in the course of time, which are more or less assisting to propagation than others. Are not the productions of the earth diversified? and is it not observable, that some years are plentiful, and others barren? If there are certain powers which occasion the sterility of the earth, is it not probable, that there are also some which have an equal influence over the animal creation? Let us not doubt it; especially as we see, that some climates are much more favourable for propagation than others; as, for instance, the province of Kianfi in China, where the women are so fruitful, that they are always with child, and bring forth three or four at a birth. This fertility peoples the country with such a multitude of inhabitants, that although the earth bears three or four crops in a year, yet its productions are not sufficient to support them; insomuch that the greatest part of the natives are obliged to abandon it for bread, and to get a livelihood as vagrants, in the provinces of Asia.

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flections, when disengaged from all business. The extraordinary diminution of mankind since the time of Julius Cæsar, is a circumstance that has very often engaged my attention. It is certain, that the people almost innumerable, who inhabited Asia, Greece, Tartary, Germany, France, Italy, and Africa, have diminished in proportion as the Christian religion has been propagated in Europe, and the Mahometan in other parts of the world. This decline, moreover, continues visibly increasing every century. It is about sixty years since M. de Vauban made a calculation of the number of inhabitants in France, which he found to amount to twenty millions ; but it is far from being equal to that at present.

I am persuaded there will one day be an absolute necessity to make some alteration in our religion with regard to this circumstance ; for if one considers, how many institutions it establishes, which are an hindrance to propagation, this diminution of the species will no longer be so surprising. The frequency of marriage is very much prevented by it, and the flower of a woman's youth is often spent in waiting for a husband. But nature, during this time, is unwilling to be deprived of her dues, and commits trespasses by which the generative faculties become at length enervated : debauchery of every kind takes place ; and the very name likewise of passing for a virgin, contributes not a little to this decline of which I am speaking. Add to this, that a woman who  
bears

bears no children to one husband, might notwithstanding to another ; because married couples frequently grow irksome to each other, and live in a perpetual state of discord and uneasiness. In short, the whole system is repugnant to the law of nature.

According to the holy scripture, the first command which God gave to man was, *Increase and multiply!* Nevertheless, it is that, which, of all others, engages the least of our consideration.

If Nature is refused what she demands, the powers of engendering become lost ; and out of a hundred women who have devoted themselves to religion in convents, there are scarcely ten that are capable of generation. How many therefore must there be in a state, that are absolutely useless, and unfit to discharge the important duties for which the Author of nature created them ? Let us likewise examine, both in town and country, whether, with regard to the ability to bear children, it is not, in general, as ten to one, in favour of the unmarried against the married.

A legislator, who would form a system upon propagation, by the prudent establishment of such laws as were likely to contribute the most to that end, would lay the foundation of a monarchy that could not fail of becoming one day formidable to the whole world. He ought, in the first place, to eradicate debauchery ; which, so far from being dictated by nature, is one of her most inveterate enemies.



mies. It would be necessary, therefore, to inculcate by education, that sterility is one infallible consequence of it; which, after the age of fifteen, should be accounted dishonourable; and that the more children a woman had, the happier would be her situation; which might very well be accomplished, by an institution, that the produce of every tenth day, whether it be from their revenues or their labour, should be consecrated to the mother. As her expectations, therefore, of future ease and happiness must increase with their numbers, she would be as industrious as possible in bringing them up. It should likewise be ordained, that every mother, for ten living children produced before a magistrate, should have a pension of a hundred crowns; of five hundred, for fifteen; and of a thousand, for twenty. This prospect for the common people, would be a powerful incitement to the taking care of their children; which every mother, from her youth, would not only make a capital point of herself, but would instil the same principle into her daughters.

It may perhaps be objected, that the fathers would be afraid of being incumbered with too many children. But, in answer to that, they are not attended with much expence, so long as they continue infants: and it is a general remark, that the more children a tradesman or peasant has, the better his affairs are carried on; because, from the age of six or seven years, they become useful to him.

But the most effectual means of peopling the world, would be, by establishing a law, that no future marriage should endure for more than five years, or be renewable without a dispensation, in case there was no child born in the course of that time : that such parties likewise as should have renewed their marriage so often as three times, and have had children, should be afterwards inseparable, and live together during the remainder of their lives. All the theologians in the world would not be able to prove any impiety in this system, because marriage was instituted by divine authority, on no other account but that of population.

If the Christian religion is contrary to propagation, in rendering marriages indissoluble, and in admitting of only one wife, the Mahometan is not less so, in assenting to a plurality : for out of the great number that are married to one man, there is generally but one who is in possession of his affections ; and the others, who are converted into his slaves, remain useless with regard to propagation. The men exercise a tyrannical authority over this charming sex, because it is they who made the laws what they are in their present state, as being most convenient to their own selfish purposes. The Turks lock up their wives, and we, from custom, assume absolute dominion over ours ; from whence proceeds that falsehood so notorious in women, because we have reduced them to the necessity of disguising their real thoughts,

thoughts, by not having consulted nature in the settling of their department. If it was the established practice for them to be governed by inclination in the choice of their husbands, and to marry for a limited term, we should never find them guilty of practices that were either in the least unnatural, or destructive to the constitution: the season for love, when it arrived, would be totally consecrated to its rites; debauchery would be utterly abolished, because neither sex would be any longer tempted to satisfy the demands of nature by such resources; and marriage, accompanied with so much freedom and indulgence, would become an object of universal desire. The introduction of such a law would put a stop to the increase of this evil, which spreads itself over all the world, and continues, from day to day, to impair the human species. In order to ascertain the truth of this, we need only to consider the difference of a people where it has begun to make its first advances, comparatively with another where it is less established. Let us see, by a rational calculation, the disproportion it will occasion with regard to propagation.

If every individual female only brings forth one daughter, that lives to maturity; consequently, one woman will produce no more than one woman to the state, during her own, and every succeeding generation. We will take six generations, each to consist of thirty years, the amount of which will be 180; and

allow that a woman will produce two females to the state in every one.

Issue of the first generation,	-	2	
—of the second,	-	4	
—of the third,	-	8	
—of the fourth,	-	16	
—of the fifth,	-	32	
—of the sixth,	-	64	women in 180 years.

The difference, therefore, of a woman's producing two, instead of one, will be as 1 to 64.

If we allow, that women in general may bring forth three, which grow to maturity in thirty years, it is no more than what is very common, for such as are happily married; considering at the same time how many there are who exceed that number. I shall therefore, in the following computation, suppose this to be at least the proportion, where women are influenced by affection, by a principle of religion, by interest, or by the laws of nature.

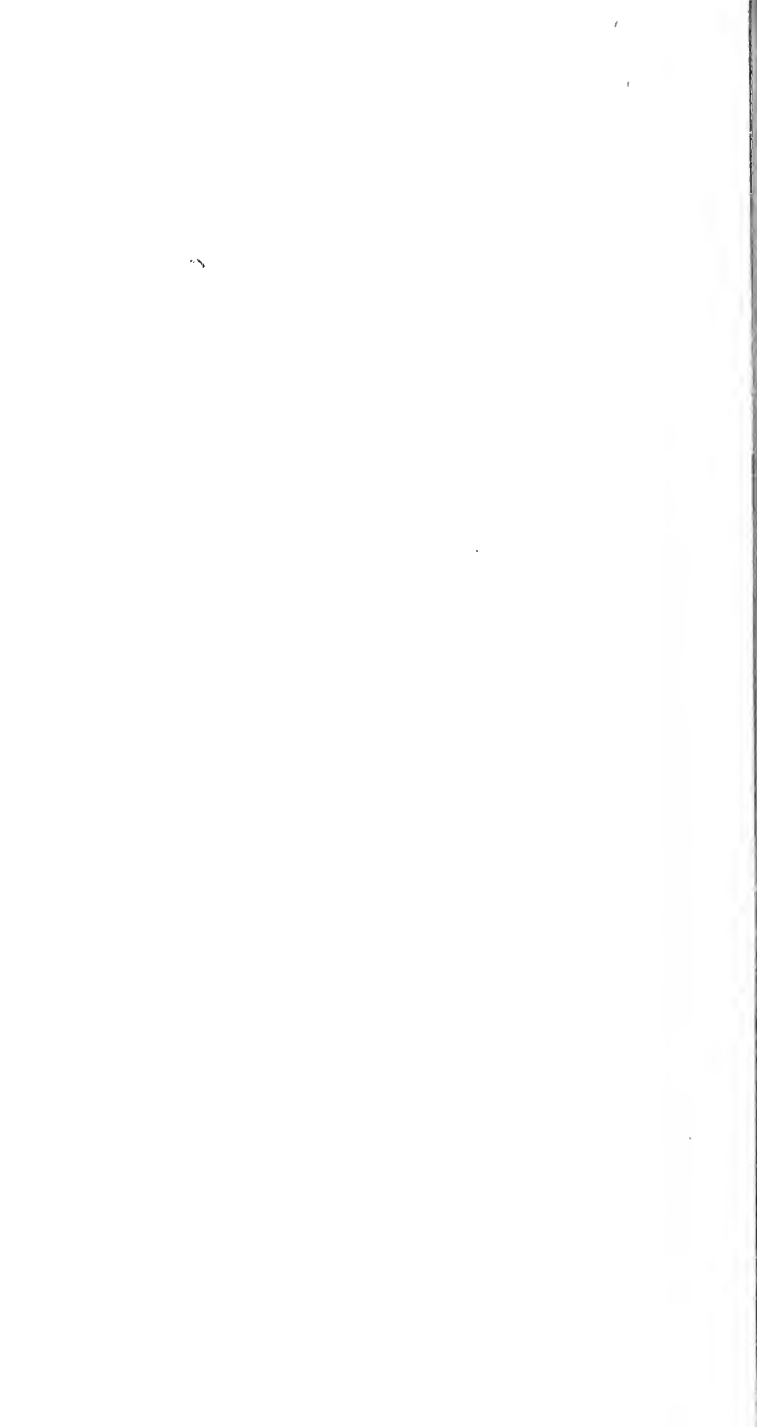
Issue of the first generation,	-	-	-	-	3
—of the second,	-	-	-	-	9
—of the third,	-	-	-	-	27
—of the fourth,	-	-	-	-	81
—of the fifth,	-	-	-	-	243
—of the sixth,	-	-	-	-	729

i. e. 729 women in 180 years: if to which we add the like number of men, it will amount to 1458; consequently, in the course of six generations,

Ten women will produce	-	-	14580
a hundred,	-	-	145800
a thousand,	-	-	1458000
a hundred thousand,	-	-	145800000
a million,	-	-	1458000000

Thus,

Thus, upon a supposition that every woman will bring forth six children in thirty years, one million, which is near the tenth part of the number that is in France, will have produced, in a hundred and eighty years, fourteen hundred and fifty-eight millions of souls. This is a most amazing number: and although we should even take away three parts out of the four, the remainder will still be prodigious.



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C O N C E R N I N G  
L E G I O N S :

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A P L A N for new-modelling the  
F R E N C H A R M I E S.

P A R T I.

Of Discipline.

**T**HE necessity of military discipline has never been so evidently proved, as since the beginning of this century. I shall not call to mind the misfortunes that have happened to us during the war of 1700, notwithstanding that we had on foot a prodigious number of forces, whereof the greatest  
part

part were experienced in war, and commanded by old officers. I shall only speak of those singular events we have been witnesses of in Bohemia and Bavaria, and of the condition in which we have seen the fine and numerous armies return, sent thither by the King. I shall prove, that the want of discipline in our troops has been the cause of all our misfortunes; and that the constitution of our military state must, of necessity, have produced a decay of discipline. However, should any body, from a principle of ignorance, not perceive the immense advantages that arise from a good discipline, it would be sufficient to make him observe the alterations that have happened in the affairs of Europe, from the year 1700, as well with respect to the Russians as to the Prussians. We have scarcely known the *first*, if I may so speak, but by their barbarousness and defeats. A single man, but a great one, has, all of a sudden, made the face of that empire change. His unhappy experience, or rather the effect of a sublime genius, made him sensible of the impossibility there was for great states, not only to make conquests, but even to maintain themselves with a multitude of armed men, where they are led without rule, and obey without discipline. This he purposed to obviate, and it was brought about in a short time. Of the most brutish and timorous men he made prudent and intrepid soldiers. Their neighbours, who had formerly



formerly been their conquerors, had soon an opportunity to make proof thereof to their cost; and Europe, should their discipline long subsist, will be still better acquainted with the effects of it.

As for the Prussians, though the change has not been so considerable among them, it may have affected us more, as we are nearer neighbours to them. They have wisely taken advantage of the leisure of a long peace, to bring their military state to perfection; and those troops, which most of our old officers, contemning discipline, looked upon, four years ago, as puppets, of no use in war, we have since seen, with a very few old soldiers, in opposition to experienced troops, performing, in the battle of Molwitz, the finest manœuvres, and acting with the greatest bravery, that a body of infantry was ever known to do. Is not this sufficient to convince us, that nothing ought to be despised in our profession? All is essential in it; the least trifle becomes important to us by its object, and the most inconsiderable neglect becomes a capital fault. I thought I ought to chuse the example of these two nations, rather than those of the Greeks and Romans, which are equally good: but modern examples make greater impression upon us: for the rest, men are the same in all ages; consequently, from the same circumstances, we ought to hope or fear the same effects.

I have hitherto spoke only of the advantages which a good discipline procures: It will be still more easy for me to shew, how many misfortunes the contrary draws after it. As the present state is that which concerns us the nearest, and as urgent necessity requires being changed, I shall confine myself to what has happened in this war.

All the armies the King has sent into Bohemia, Westphalia, and Bavaria, went thither very well equipped, made a fine appearance, and were complete; they are returned in a ruined condition, exhausted, and have lost a prodigious number of officers and private men: nevertheless, we never have had there a general engagement; and the only one that has been a little considerable, has had a good issue for us. We have seen our armies melted away by parcels. And indeed, the greatest part of the detachments sent to the war, the detached posts, the convoys that have been attacked by the enemy, have been beaten or surpris'd through the want of discipline in the soldier, or neglect in the officer. It was never known that a convoy march'd in good order. The soldiers, constantly employ'd in pillaging, or at least keeping out of the sight of their commander, are us'd to straggle from the very beginning of the march; and there is scarce one officer to be found that minds it. If he attempts to keep them in order, the soldier, accus'tomed to insolence, disobedience,

dience, and impunity, doth neither more nor less for that, and steals away at the first opportunity. Neither is there a single officer to whom this happens, but owns himself, that it was not in his power to keep his men together. An absurd and ridiculous answer, the consequences whereof must infallibly be fatal to a state! 'Tis the same with parties, posts, guards, and detachments. Either the soldier straggles, or, if he remains with his troop, he marches in bad order, he halts every moment, speaks when he should be silent, and grumbles when he should obey. If the enemy appears, his senses and judgment are quite confounded; he neither knows how he is to form or defend himself; it is all confusion: and if, by chance, any word of command is given, which seldom happens, you address yourself to deaf men and immoveable stocks, little accustomed to military exercises, or the obedience and the respect they owe to their officers. They discharge their pieces in the air, and, of necessity, are beaten: and this happens, because the soldier is not used to wait for command, and the punishment is never speedy enough among us; but, above all, because most of the officers neither know how to command, or make themselves be obeyed; and such as know it, oftentimes dare not do it, for fear of drawing upon themselves the hatred of their brother-officers, who imagine, that punishment occasions desertion; or of

being blamed by their colonels, who do not know the consequence of discipline, and commonly have no idea of it ; because no body can get an exact information but by what he sees ; and all that is seen is not sufficient to give him such a one. Men cannot judge justly of things but by comparison. Whoever has not seen the Prussians, or not served with them, cannot know how far their exactness and discipline goes, nor be acquainted with all the advantages resulting therefrom. Every body has seen the enemy's troops, in the battle of Dettingen, making their manœuvres in surprising order, though unexperienced in war : but few people have taken notice, that that steadiness with which they behaved, was the effect of their discipline ; because few among us know the intrinsic value of it, and what effects it is productive of, when it is carried to a certain pitch. We have likewise seen our armies dwindle away, day by day, through maroding, and the hospitals, which are an infallible consequence thereof. We have not made one single march in Bohemia, that has not cost us a great many soldiers, either taken or killed by the enemy or peasants, when they left their corps, on account of pilfering. It is impossible to make most of our officers comprehend the order in which troops ought to march : they have no notion of it ; because, to say the truth, they never saw such a thing in France ; and mentioning it to them,

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is speaking an unknown language. All that is enjoined them is, that they shall not suffer their soldiers to straggle. But this is not easy for them to execute. Few give themselves the trouble to be diligent and alert; and there are some, to whom soldiers, on their endeavouring to make them return to their column, would give such abusive answers, as perhaps they would not have ventured to utter to their comrades. There are others, who, far from punishing their soldiers themselves, take their part against superior officers, in the presence, and at the head of their men. Even some have been seen demanding satisfaction, sword-in-hand, from field-officers, or their comrades, for having struck their soldiers which were found wanting in point of duty. This is certainly enough to discourage the most zealous in their profession, when they find that no body stands by and seconds them.

Such are the effects of our bad discipline. Unfortunately we have it every day in our power to experience the truth of what I have been advancing; let us at present endeavour to find out the causes of it.

The military state in France consists of men that are reducible to four different *classes*. To the first belong the lords, and people of quality, designed for commanding the three others. The second comprehends the inferior nobility or gentry, from which all the subaltern officers are taken. The two last consist of peasants

fants and handicrafts-men, whereof we make foldiers. The French soldiery has at all times been compos'd thereof, and certainly there have been times when they were extremely well disciplin'd. Without going farther back than the days of M. de Turenne, we shall see, and ought to judge, by all that he has done, that the French infantry was the best disciplin'd and most indefatigable of all Europe; and how could he, had it been otherwise, have made such long and glorious campaigns, and obtained victories, which another, besides him, could not have hoped for? There are such marches of M. de Turenne, which it would be impossible for us to make at this present time. The success of those extraordinary enterprises he formed, how well soever his projects might be concert'd, would never have answer'd his expectation, had he not been able to depend upon the exactness and obedience of his troops. We are not to think, that he alone hath been capable of putting and preserving the troops upon that footing. I know, that I am going to advance a paradox; but I shall maintain, that it is almost impossible for a general, let him have ever so much attention, credit, and penetration, to discipline troops thoroughly, when they are badly constituted; 'tis in vain for him to apply all his care towards it, during one or even several campaigns; one single winter-quarter, where the troops, if I may speak so, are left to themselves,

themselves, is sufficient to destroy what he has done. Besides, a general never sees but the outside, and seldom the natural state of the troops ; that which is called the *spirit* of the soldier, doth in no manner depend on him. I shall not at all speak of the confidence they may have in his capacity, it may be an entire one ; but it will not increase that which it is necessary they should have in their officers, and which is the surest motive of their obedience.

Consequently what we desire, depends on the particular officers, as well as that spirit which was in our troops in M. Turenne's time. The king had in those days many regiments less than what he has at present, and people of the first quality could not obtain the command of any one, till after they had served for a long while in the capacity of subalterns, and been in a way of learning the detail of a body of men, the genius of the officers and soldiery, and had acquired of themselves commonly all that was requisite to get into favour. M. de Turenne had carried a musket in Holland. To be able to command men properly, 'tis requisite to know them beforehand, to have seen them in different situations, to be able, by a nice scrutiny of the most minute operations of their minds, to distinguish their talents, to produce and employ them on proper occasions. There is no profession where all this is more necessary than  
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in that of war. 'Tis impossible, that a person who is wanting in any of these points, should understand how to enforce discipline, that is to say, to form soldiers for the hardest and most fatiguing exercises, to deprive them of all kind of will, to reduce them to the most servile obedience, and to make of the most indocile men, machines, that are only animated by the voice of their officers. Certainly all are not possessed of this talent; they may be very proper for war without having it; and a person may be capable of making a good march, marking out a camp, making a fine manœuvre, and taking the best course in presence of the enemy, and yet be quite unfit for being a chief or commanding officer of a corps. It is therefore evident, that the command and discipline of troops ought not to be intrusted but with wise and experienced men, who, by their service, have been in the way of judging of the different parts of the service: nor do we ever, in governments, where the military constitution is founded on rational principles, see that young people, without study and experience, are put at the head of regiments, who, far from knowing to govern others, don't know so much as to conduct themselves.

People of the first quality and princes, are not ashamed in Germany to set out with carrying a musket, and afterwards to go through the several ranks, before coming to that of colonel :



nel ; in short, to say all in one word, the Czar Peter was a drum.

From the year 1684, the number of our regiments has been so prodigiously increased, and so many people have been preferred to the command of them, that every body has thought himself intitled to apply for one. Moreover, the King has made a regulation, that as soon as a colonel becomes a general officer, he is to give up his regiment ; and has made a great promotion of general officers ; by which means, and the solicitations of people designed, by their birth, to come to the command of armies, we see none at the head of regiments but young people without experience, and often without application. Scarce are they come out of the college or academy, or have served two or three years at the head of a troop of cavalry, but they believe themselves ill used, if the command of a regiment of infantry is not given them. They soon obtain it, and hasten with precipitation to get themselves received. As soon as the ceremony is over, they begin to grow tired of their garrison ; they immediately make excursions into all the neighbouring towns, to rid themselves of their disrelish for it, though this is expressly forbidden : but the regard that is thought due to a young colonel, prevents the commanders of places to inform the court of it ; and what is most astonishing is, that the younger a colonel is, the farther this foolish

complaisance to him is carried. It is true, they return every week to exercise their regiment ; but they soon perceive that they understand nothing of the matter ; yet they are resolved to command, and, in order to hide their ignorance, contrive expedients for the future to set aside the exercising of their regiment. As for the *details*, and the discipline of the corps, no care is taken to instruct themselves therein, and seldom do they endeavour to be acquainted with them ; this being a dry and tiresome subject, they disdain it ; and if there happens to be some major or lieutenant-colonel, that is steady and attached to his duty, can it be expected he will venture to contradict a colonel to his face, that is only come to please, not to punish, and by whom perhaps he expects to make his fortune ? At last growing tired, and being quite surfeited with the soldiers, and content with having entertained the officers of his regiment genteelly, this colonel, at the end of two months, departs, with a firm resolution of returning as late as possible, to make a still shorter stay there, and to be less assiduous in the discharge of his duty. He arrives at court. The first thing he solicits, is the retreat of an old officer, *that knows nothing but the service*, between whom and an *amiable young man*, that has faithfully kept him company in all his parties of pleasures, he settles the bargain ; and there it is, that all the most important matters for the King's

King's service, or the retreat of the best officers of the regiment, are settled; it is in consequence of resolutions taken there, that furloughs and military favours are solicited, the King's authority is made use of, and the interest of his service sacrificed to the caprice, taste, and prejudices of the least judicious men. These are the people who are intrusted with the execution of the military laws, which demand so much severity, vigour, and justice; with the most important of all employments, and with what requires the most talents; because on this depend the good or bad dispositions of troops, and consequently the honour, glory, and welfare of the nation.

With respect to the lieutenant-colonels, and commanding officers of battalions, we should have no room to reproach them with want of experience, if age and time were sufficient for acquiring it: but how few are there that are such as they ought to be, and act in a proper manner? As they are taken from the body of subalterns, and as I cannot make mention of the one, without speaking of the others, I am going to begin with the sub-lieutenants, examining in particular all the different ranks.

The inferior nobility of the provinces, that is to say, the most poor in the kingdom, make up almost all that part of the body of infantry, some *financiers* or gownsmen excepted, whose parents, out of complaisance to

their children, and on account of their finding in them little capacity for following their own profession, suffer them to embrace that of war; in the foolish persuasion, that, of all others, this is that where knowledge and application are the least necessary. However, they commonly remain there but a little time. When they are in a condition to live at home without the King's favour, they, convinced of the vanity of their ambition, and disheartened by the fatigues of war, have not even the patience to wait for the order of the cross of St Lewis. As for the others, their conduct is entirely different.

There is not so much as one of the lower nobility in the most remote provinces of France, that is not designed by his father, parents, neighbours, or friends, to enter into such or such a regiment, at twelve or thirteen years of age. He begins to be weary of his father's house; father, friends, relations, neighbours, all persecute the colonel of the regiment for which he is designed, to give him a commission. The colonel only asks what his *pension* will be, which commonly amounts to five, six, eight, or nine hundred livres. This being examined into, he gives him an ensigncy. The young officer sets out with his firelock to repair to the garrison. At his arrival he finds an old captain, chosen by the parents to be his tutor; who begins by telling him, that he must be mindful to husband his money, and  
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be polite to the officers, gentle to the soldiers, and above all not to strike them : for the rest, not one word is said of all that it is necessary he should learn ; and how could he acquaint him with it, he that is ignorant of it himself, and who knows neither how to instruct him in it, nor in what manner his instructions should be followed ?

The lieutenant-colonel or the major, nevertheless, tells him, that it is necessary he should learn to perform the exercise ; and thus all his military studies are ended. The young officer, from that time being eased of the yoke and authority of his father, hurried away by the follies of youth, and heat of passions, and encouraged by the example of his brother-officers, embraces with eagerness the indolent and loose life he continually sees those lead that are united with him ; and according to the choice he makes of them, he passes it away in good or bad company, at billiards or coffeehouses. There he hears every moment grumblings at discipline, murmurs at authority, lamentations that the soldiers are too much fatigued by field-days or guards, complaints against such as punish them ; and he himself will soon be intreated by his captain, not to give an account to the commander, of the faults, or even crimes of the soldiers of the company, which by chance may come to his knowledge. He will be told, that so many have deserted for having been put into prison ; that so many are in the hospital  
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on account of having been exercised twice a week ; that such a one has been ruined, by being compelled to complete his company ; that such a one has been killed in such an action by the soldiers of his regiment, because he had struck one of them ; that a French soldier is not to be beaten ; that he must be governed only by gentleness and honour ; and a thousand other senseless and out-of-the-way stories, which would appear incredible, were they related. Moreover, one single point decides his rise in the corps. Inquiry is made into his family's circumstances. If they are in a condition to supply him with the sum which is requisite to purchase the retreat of a Captain, *i. e.* six thousand livres, he is then looked upon as a man that ought to be made much of, to be kept in the corps, and that will answer the views of the regiment ; but if the case be otherwise, he is slighted, disregarded, and it would be matter of joy to see him superseded, or another come over his head.

This picture will, I doubt not, appear overcharged to all such as have never served in the infantry as subalterns, nor lived in a garrison ; but every body else will agree, that it is drawn after nature, and exactly true. To sum up all, this lieutenant, after seven or eight years service, aspires to a company ; firmly persuaded, that the profession of an officer consists in mounting guard as often as ordered, and in nothing more ; that there is nothing in the infantry deserving  
attention,

attention, but the money that can be drawn from a company ; and that it is upon this footing the world ought to think : that his youth is passed, and that he is now in a condition to command a troop or company ; that an officer cannot nor ought to carry his views any higher than the obtaining the order of the cross of St Lewis ; and if he be of the number of those that are chosen, and consequently so happy as to be preferred to a lieutenant-colonelcy, and from thence to be a King's lieutenant, which is the *ne plus ultra* ; these are the bounds of his ambition. For this purpose, he gathers together five or six thousand livres, in which commonly the greatest part of his portion consists ; becomes more assiduous in making his court to his colonel, that is to say, in accompanying him in his parties of pleasure, and succeeding by complaisance, in making what is called an agreement ; and oftentimes, against the advice of a lieutenant-colonel, you see him soon preferred to a company. Scarce has he got his commission, but he informs himself exactly of the character of the commissary, to know how many non-effectives he will allow him of his complement, how many men are to be on duty, in order to have an opportunity of making complaints, that they are too much fatigued by the service ; he sends for the sergeants, to recommend to them lenity, and secrecy in all that shall happen in his company,

strictly

strictly forbidding them to give an account of it to any but himself. This is the method by which this officer acquires the right of saying, *I have served thirty years*; constantly endeavouring (unless he is carried away by other passions) to save penny upon penny from the allowance of his company, in order to make himself amends for what it has cost him; to get wherewithal to retire and live quietly at home, when he shall have obtained the order of the cross of St Lewis; insomuch that one might muster up a whole army of these little pensioners, that are dispersed all over the kingdom; the greatest part of whom are neither decayed with age, nor disabled by any wounds received, and have quitted the service at the very time they were fittest for it. Certainly exceptions may be made to all that I have been advancing. But I speak in the general; and it is not to be wondered at: nevertheless, they are very nearly the same kind of men as composed the body of infantry under M. de Turenne: but the events that have happened in the military state since that time, must, of necessity, have caused this great change. In the first place, the considerable increase made in the army, has put it out of our power to make a proper choice of officers; and if we have but a two years war that is a little brisk, we are obliged (though the lower nobility in France be very numerous) to look out for subalterns among a set of men never designed for forming the



the military, I mean the citizens and tradespeople. Besides, the pay of the officers is so scanty, chiefly in time of war, that it is impossible for any one to equip himself properly, and to support that rank of life, without having a pension of at least six hundred livres from his family. A great number of them, on that account, quit the service, or never enter it; insomuch that the poor nobility of the kingdom are obliged to keep at home in their province, where they grow clownish and contemptible; whereas they might soon make a figure, in case they were in a condition of embracing the profession of arms. It is this reason likewise that contributes most to the discouragement of officers, and the decay of discipline. The pay of a captain of infantry commonly makes out three parts of his whole income. I do not know what it was formerly: but supposing that he had then no more than the half of what he has now, (which is incredible), his pay must still have been infinitely better, considering that the price of provisions is more than double to what it was then. Men are influenced either by interest or honour; nay, the first motive is often confounded with the last. If this is the case, interest is always the most concealed and most powerful spring. Although the object of interest is the most remote from the point which they ought to aspire to, it is nevertheless the mark they aim at the more directly, as it can be done with such secrecy. Now, it is certain,

that the discipline which ought to be enforced, does not always agree with the advantages officers would willingly make by the service : on the contrary, it may occasion some losses, which they should generously sacrifice to the good of the service. This indeed is seldom done. But it more frequently happens, that the interest of the officer being contrary to that of the service, the first generally prevails.

His narrow circumstances, the smallness of his pay, and the difficulty he has to subsist, not decently, but barely, keep him in constant fear of losing a soldier, (for a soldier is the fortieth part of his substance). Thus all his care and attention are taken up by the meanest and most pitiful views of advantage. Hence that general impunity, the source of every disorder. Therefore, among the best-disciplined troops in foreign countries, we find that a captain has much better pay than in France. And what vigour in command, vigilance in the service, exactness in duty, emulation and desire to instruct one's self, or gentleman-like behaviour, can there be expected from a man that is ever discontented with his profession, constantly employed about means to subsist in it, or to give it up, and waiting with impatience for the time of quitting it to advantage.

Distress of circumstances, of course, renders the mind stupid and abases the soul ; it extinguishes courage, and infallibly benumbs all the talents.

talents. In a word, an officer ought to live by his sword, and expect his fortune from it. A point of view therefore must be offered him, whose charms are powerful enough to make him sacrifice the present interest to a future chance that flatters his ambition. To be blind with respect to this article, is as much as refusing to remedy the vices that would cause the loss of the infantry. So much with regard to private interest.

As for emulation and ambition, an officer of infantry cannot reasonably have any. The only points in view that are proposed to him at present, are easily cast up. He may become a brigadier at the age of threescore, or threescore and ten: but of two thousand persons that enter the service, scarce one comes to it. Nay, even when he is honoured with that rank, he has oftentimes nothing to subsist on. He seriously dreads sometimes his being made a general officer; because, by resigning his former commission, he has nothing left him to live in a way becoming a private person, far less like an officer of that rank. At the same age, he may aspire no higher than to a King's lieutenancy, or a majority of five or six thousand livres *per annum*, (how seldom does this happen!): these are the bounds. But let us consider, what are the means to come at them.

Some, convinced of the interest the colonel's family has, will sacrifice the King's ser-

vice with a most cringing complaisance, and neglect every thing that would be for the honour of the regiment, in case they find it displeasing to the colonel. If a lieutenant or ensign has the good fortune to please him, then he is a man of ability, and the colonel is the first to conclude a bargain, or bring about the *demission* of an old officer, in order to get him a company, even to the prejudice of such as have been longer in the service. Others, uncertain of the success which such cringing methods may have, or being too proud to submit, seek to fall out with him, contradict him in every thing, endeavour to form a party in the regiment, and, be it right or wrong, make it their business to be always of an opinion contrary to his. The consequence of all this is, that the regiment is without subordination and without discipline. The court becomes acquainted with it; and, in both cases, the colonel's family employs all its interest to get this lieutenant-colonel preferred. And as the one as well as the other know, that these are the most sure and shortest means to get preferment, and commonly have nothing else to expect, should they even serve twenty years longer; it is rare that they take any other means but such as I have been speaking of. Those are the most sensible and wisest, who, at the end of five and thirty years, finding their health impaired, and their substance entirely spent, exchange a tiresome and painful life,

life, which in the end neither promises advantage nor flatters ambition, for a little pension to retire withal.

It is in this manner that the career of all our officers ends. They enter the service with a foolish and immoderate eagerness, pass their days there in ignorance and criminal idleness, and quit it with an aversion and contempt but too well grounded : whereas, not sixty years ago, captains were found in many regiments of infantry, capable of commanding divisions of a line : and I have heard many veterans say, that some of them had turned out very good general officers, no longer than thirty or forty years ago ; and that, at the revocation of the edict of Nantz in the year 1685, many of those that then quitted the service, were employed as general officers in foreign services.

As for those of our officers that are called *Majors*, (that is to say, majors, adjutants and subadjutants), of whom I have not yet spoken, they are the most useful part of the infantry ; and perhaps we should, without them, have entirely lost the notion of discipline. That which renders them more attentive to the good of the service, proceeds from their having a more particular charge than the others, and no troop or company of their own, consequently no interest to thwart it. Nevertheless, the greatest part of them, either out of weakness, or complaisance to their brother-

ther-officers, whose reproaches or enmity they fear, are remiss in the service and in the discipline, keeping always those talents to themselves, which, should they make use of them, would only serve to disturb their daily peace and comfort of life. Besides, their pay is so small, that they are all obliged, in order to supply the unavoidable charges of their employment, to receive a certain sum from the captains; which they certainly would be deprived of, should a company, though ever so deficient, not pass as complete, at the review of the commissary; insonmuch that the major and adjutants, whose principal duty it is to keep up the discipline, and see the military laws executed, are at present compelled to do just the contrary; to deceive the King every day, and to take a pecuniary pension of their brother-officers, as a salary for the unfaithful discharging of their duty. In every other service, the major is the third person of the regiment, and a quartermaster or adjutant is charged with all the distributions, accounts, and the assigning of quarters. The adjutants among us have a very painful and laborious post, especially in campaigns; and as they are not allowed a sufficient subsistence, they no sooner have obtained the brevet or rank of captain, but they employ every method, even to the neglecting of their duty, to be appointed to a company; and we seldom see now-a-days any more old officers in  
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that commission; so that there is a necessity to bestow it on lieutenants that will condescend to accept of it, for obtaining the above brevet or rank.

As for the soldiers, I believe there can be none of a better kind than in France. We take them from the country and towns. The peasants are commonly well limbed, brave, and vigorous. The handicraftsmen have not always the same good qualities. Being brought up in towns, and enfeebled by debauchery and a loose life, they oftentimes are more intelligent than the others, but cannot acquire the same qualifications, unless at the end of a certain time: and, in case they are properly officered, one may find among them fit persons to be employed as good non-commissioned officers, provided they can be brought to be prudent and tractable. For the rest, I think it a great error to believe, that our soldiers cannot be so obedient and well-disciplined as the Germans are. I have seen some of them among the Prussians, (whose daily discipline is one of the most severe, and where the least false step or neglect is instantly punished with an hundred lashes), remarkable on account of their neatness, address, and submission. It must nevertheless be owned, that they are naturally more curious, talkative, and satirical, than other nations. From thence proceeds the little respect and confidence they have in their officers, (whose low circumstances, and  
indecent

indecent condition, sometimes put them below the foldier), especially when they are born of a creditable family, and have been in a way of receiving a certain education ; which is common enough among them. Such is the character of French foldiers ; and I own, that though they want the most essential qualifications for a foldier, which are obedience and submission, I know none of a better disposition, and that are more proper to be made excellent troops.

This is all I could perceive and understand of the causes and effects of our want of discipline. Every body is sensible of the inconveniencies arising from it, and fears the consequences that will thence ensue. The King is willing to obviate them ; and it is with this view, that not long ago so many wise ordinances and excellent regulations have been issued concerning the service. Let me however be allowed to say, that custom always prevails, and often against reason. It is enough for us that a thing has been, or is still, to induce us to let it always remain so. A man not only would be looked upon as a monster by the most clear-sighted, but his proposal universally condemned ; which custom, of which the origin is unknown, has for ever given a sanction to, and which no body would dare take the liberty to attack. But is it fit to decide, with so little examination and so much prepossession, things that determine the fate of  
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of princes, nations, and empires? It is sufficiently known, that most of our ordinances are judiciously drawn up, and properly digested; yet they increase so prodigiously, that it is impossible for an officer, be his application ever so great, to understand them well, and be thoroughly instructed in them. Besides, this multiplicity of laws has something in it unbecoming, one might even say dangerous and prejudicial to authority; and it is a certain proof of their not being executed. It would be much more advantageous to the service, if such as are not regarded, were suppressed, which would considerably abridge the *code militaire*, and if no new ones were published on the same subject, as they serve no other purpose but to publish impunity, and authorise disobedience. It is in vain to hope, that by ordinances it is possible to prevent all those cases that may happen. Circumstances vary infinitely, chiefly in military crimes and offences. In keeping to the letter of the law, one is oft-times extremely puzzled; and it is easy for such as know to interpret it, to change and elude its meaning. We may therefore conclude, that laws are in no manner sufficient to regulate armies; that there ought to be living laws at the head of troops; and that it is much more easy for princes to make good captains, than ordinances without flaws, or that stand in no need of amendments.

Before I proceed to shew the means which appear most convenient for attaining this end, it is necessary I should say a word concerning the order of our battalions. Before pikes were quite disused, they were divided into three divisions; the right and left were composed of our musketeers, and the centre of pike-men. \* According to this disposition, every battalion had three colours, one for each division, in whose centre they were placed; by means whereof it was easy for every soldier, in an engagement or disorder, to know his place again; because every division, consisting only of two hundred men, which I suppose to have been drawn up four men deep, had but fifty in front; and thus it was extremely easy for a soldier, even the least intelligent, to know very near at what distance he was off from his colour; it could rarely happen that he should have lost view of it, but at the first sight he could know again his rank and file. Every one of these divisions made (as I may say) a battalion, which rendered

\* The journal de Trevoux on this passage runs thus: "We have observed in this performance a point of our ancient discipline, that we have not been able to clear up, *viz.* In our battalions of old, then disposed by divisions, each division had their colour, in whose centre it was placed. We should not have ventured to call in question this fact, had we been very certain, that it was not inserted by another hand than the author, or left in through too much indulgence." We have been informed, that the author of the treatise on the legions has seen this controverted point, and has approved of it. For this reason we place it here.

the *manœuvre* more distinct, and the command more easy; likewise whenever any movement was required, the usual manner of expressing themselves was by *divisions*, *half-divisions*, and *quarter-divisions*. This proves that these divisions were looked upon as a separate body, in the manner as we now speak of *half-ranks*, *quarter-ranks*, *half-quarter ranks*, on giving the command to an entire battalion. These divisions had small intervals between them; and, by means of this disposition, any one of the three could be broke, and rally, without causing the least confusion in the two others. Lastly, Every division made its *manœuvres* as the battalions at present do. Since the suppression of the pikes, the infantry has remained almost in the same form. The strength of our battalions has little varied. The number of men in each never was much above or below six hundred, and computing the companies at the commencement of a campaign, they may commonly be reckoned at that number under arms. Yet since the musket is become the sole weapon of the infantry, there has been no more any distinction in our battalions; they have made but one body, which, it has been thought, ought not to be separated in order of battle, and is made to march and make its *manœuvres* as formerly a single division did. The battalions often, at the end of the campaign, have been reduced to the third part of the number of their men; and this

undoubtedly is the reason, why it has been found expedient to join the three colours, and place them in the centre. But, in this disposition, they scarce serve at all the purpose they were designed for; which is, that they should be a point of view and rallying to the whole body of men that owns them. For, supposing our battalions to have an hundred and fifty men in front, it often happens, in passing a wood, hedges or thickets, and even when a battalion fires much, that the soldiers on the right and left, quite lose sight of their colours: if they are broke, they know not on which side to rally; if they are marching forward, they incline either to the right or the left, because they know not how far distant they are from the colours.

On rallying a battalion, there is a necessity that those of the right and left wait, till such as are nearest the centre be drawn up; because the great distance that is between them and the colours, prevents their knowing at the first glance where their company is to form. Besides, it is very difficult that an hundred and fifty men so much extended without any interval, especially when they must march close, can move without floating. This obliges them to march very slow; and the battalions likewise have too often several of their men pressed out, and are thereby broke. There is no other remedy for preventing this accident than  
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by halting; and if this happens in presence of the enemy, the men run a great risk of being beaten: the soldier finds himself out of his rank, and out of sight of his officer, and can thereby much easier conceal himself, or run away. To avoid these inconveniencies, the cavalry are drawn up by squadrons, without which it would be impossible to march properly. The third part of this treatise will shew why I have been obliged to make this digression.

## P A R T II.

### Of the Legion.

**T**O obviate all those errors and inconveniencies I just have been speaking of, and in order to consult the advantage of the French infantry, and give it a more proper regulation than it has at present, it is absolutely requisite to make use of instant and speedy remedies, that are easy and suitable to the genius of the nation, yet at the same time such as may produce an effect that will answer the end. Nothing is certainly more easy than this. Marshal Saxe, in 1732, wrote a treatise on war, in which he says, “The Romans conquer-  
“ed all nations,” &c. *as above, p. 33. l. 10. to the end of the page.* As the business in hand at present

sent is to make an alteration in the infantry, M. Saxe proposes to form it into legions. We have had such in the time of Lewis XI. ; and the military in France is so considerable, that their bodies of infantry may very well support the idea of that name : few other powers are in a condition to make as much of theirs.

Every legion therefore will consist of four regiments, every regiment of four battalions, every battalion of four companies, and every company of four squads. Besides this, every regiment will have one company of fifty foot-grenadiers, one troop of fifty horse-grenadiers, and another company of fifty light-armed men. Each troop of horse-grenadiers will consist of a captain, a lieutenant, a quartermaster, four brigadiers or serjeants, forty-four grenadiers, and a drum. All the other companies will likewise have a captain, a lieutenant, two serjeants, four corporals, four lance-corporals, forty grenadiers or fusileers, and a drum. Every battalion will have a commandant and an ensign ; every regiment a colonel, a lieutenant-colonel, an adjutant and sub-adjutant ; and each legion will have a legionary general, or general of the legion, a legionary major, or major of the legion, a chaplain, a surgeon, and a drum-major.

The horse-grenadiers will be armed and accoutred as dragoons are ; the grenadiers and battalion-men in the manner they are now ;  
and

and the light-armed men will have fowling-pieces, a bayonet, and a cartridge-box only.

All the cloathing of the legion will be uniform, regulated in the manner as it shall please his Majesty; and the expence will be defrayed by the usual fund or allowance. A detail of the pay of the several ranks will be given hereafter.

From henceforth a legion will be in the place of a brigade, and be a perpetual one. It will subsist equally in time of peace and war, and have several advantages evidently superior to a brigade. It will incamp, march, and fight together, unless orders are given to the contrary. Nothing is more simple, nor more advantageous than its order, for facilitating any *manœuvre*; and though it be a body consisting of more than four thousand men, comprehending the officers, it will notwithstanding be easier to move than a single battalion. The natural way of each part being divided into even numbers, will, of consequence, make it susceptible of all forms and dispositions. The method of commanding it is simple and uniform: An officer that has seen and commanded one, is able, in like manner, to command all the others, and sure to be equally understood by all of them. It will always fight with advantage, let the ground be what it will, on account of the disposition it can make, and the facility of changing it so instantly, according as need shall require. It  
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is mixed with infantry, and cavalry formed and drawn from the same infantry, and has as great attachment to it, as these two bodies hitherto have had aversion to each other. It is trained up to the firing and manœuvres of the infantry, and composed of old, brave, and known soldiers, whose age, wounds, and marches, render them somewhat unfit for being foot-soldiers.

Another considerable advantage which a legion has over a brigade, is, that, on account of the latter being formed of regiments which oftentimes are entire strangers to one another, they have much less confidence in each other; there being a variety and a difference in their methods of performing the service. The same words do not signify the same things among them; and it rarely happens, that the beatings of the one are intelligible to the other. Sometimes they are of different nations, which makes a good understanding betwixt them still more difficult to be kept up. Besides, the regiments which compose the brigades are changed several times in a campaign; and those regiments which are not the oldest in the brigades, are as often obliged to change their method of service. The brigadier, who commonly looks upon any other regiments in the brigade besides his own, as strangers to him, doth very little, or scarce at all, meddle with what concerns the detail of their service or discipline, and, as I may say, is their brigadier only



only during the day of action. Thus the little knowledge that the corps and the chief have of each other, becomes at that time extremely prejudicial to the service.

I set out with desiring, that no body will suffer himself to be prepossessed against the large allowances I propose for a number of officers ; for it will be seen at the end, that the expence of the legions is less, by some millions, than that of a like number of infantry on the footing it is kept at present. Without computing all the staff-officers who are not obliged to go a-recruiting, all the others shall receive no pay during the time of their absence : nor shall any relief be allowed, unless it be in extraordinary cases, and in case of sickness.

The general of the legion will have twelve thousand livres *per annum*, in time of war as well as peace : for it is absolutely necessary for a chief of a corps to make a figure, and have wherewithal to live up to his dignity. This will render the service more respectable in the eyes of foreigners, and be an agreeable object for all the military, who henceforth are in a way of aspiring to it. He will now, and at all times, be chosen from among the best lieutenant-colonels of the infantry, without having regard either to regiments or seniority. He must be a man of experience, prudent, and known in the troops to be such, and consequently respected. He is to know the service

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perfectly,

perfectly, and understand exactly the discipline and manœuvres of the infantry; and, above all, to have a talent for commanding. Supposing that the King transforms the hundred and sixty-two battalions he actually has in his service, into legions, which will make out thirty legions, and something above it; it is to be believed, that there will be found a sufficient number of good officers to be put at the head of the legions; and that, for the future, the number of such as are capable of this dignity, will, without proportion, be still greater than it is at present.

The general of a legion will have the same rank, and do the same duty as a brigadier; which rank will then be suppressed. Like him, he will be promoted to a *marechal de camp*, whenever the King thinks proper to advance him; at which time he shall give up his legion. He will propose fit persons for all such posts in the staff as become vacant, up to the major, lieutenant-colonel, commandants of battalions, adjutants and subadjutants, as long as he is at the head of his legion: and he shall not absent himself from it, unless for very good reasons; in which case he may obtain the King's leave for it.

It is evident, that such an officer, at the head of a corps, will perfectly know every person belonging to it. Having no other interest than that of the service, and his fortune depending on none but the King and his capacity,

city, the court will be thoroughly informed of all that shall happen in the infantry, how the colonels and the other officers apply to their duty, and of the different talents of each, which this general is to take care to cultivate and employ. Being respectable on account of his experience, service, and the figure he makes, he naturally will be feared and esteemed; which are two things absolutely necessary for a chief of a corps.

The Colonel may be chosen in the manner as is now done, from among those young people who are designed by their birth for the command of regiments, and which may be continued to be sold; except that, on supposing the whole French infantry was formed into thirty legions, the King might oblige the twenty-three new colonels he is to appoint to be put at the head of the hundred and twenty regiments, to pay each of them thirty thousand livres, which is the ordinary price for the youngest regiments of infantry; and from the six hundred and ninety-nine thousand livres, which this would produce, and one hundred and twenty or thirty thousand livres he is to add thereto, all the colonels might be reimbursed whatever they have paid above thirty thousand livres for their regiments, and all of them would then uniformly be reduced to that price. This would likewise open a way to preferment for young people of high birth, that are not very rich, and who it is

proper should be advanced, upon finding that they have inclination and talents for it. The colonels might continue to propose fit persons for replacing the vacant commissions in their regiments, excepting all those of the staff.

In this manner the subordination would be very well established, and the colonel always preserve a proper authority in his regiment. He would be in a fair way of learning his profession, and asking lessons, and the advice of the general, who naturally is the person that is to give them ; instead of being at a loss, as at present, from a wrong-placed pride, who to address himself to, (and sometimes he consults such as have an interest in deceiving him). He would find in the same legion opportunity for emulation, on account of the other three colonels that serve along with him ; instead of being left, as he now is, to his own will alone, and every one, as I may say, standing by himself at the head of his regiment, no example rouses his zeal, nor awakens him from the common lethargy. By this means, a great misfortune in the infantry would surely be avoided, which occasions the total loss of subordination, and draws after it all the other military defects ; I mean, the seeing of children just come out of college, at the head of corps, which, on account of their little experience, they are unable to command, and whose unbridled youth constantly prompts them  
to

to things absolutely contrary to the military profession.

The young colonels would always be under the regulations and instruction of a complete foldier ; who would moderate their passions, form their ideas on principles they never could lose fight of, on their becoming general officers ; because these colonels must all at once be promoted to the rank of *marechals de camp*, and never be made generals of legions. Thus having got a good tincture of the service in the infantry, it would be easy to see whether or not they have the qualifications requisite for greater commands.

On the footing things are at present, a colonel sometimes is preferred to the post of brigadier and *marechal de camp*, without ever any body having had an opportunity to examine his talents to the bottom, and knowing with certainty what capacity he has. I avoid speaking of certain dishonourable practices, as the selling of commissions, and others that have been made with respect to cloathing, which in the legion could not happen ; all the world knows, that several colonels, in times past, have been accused of these things. The colonels will rank with one another in the legion, according to their seniority.

General officers trained up in such schools, obeying those rules given them, would certainly learn the art of commanding, and might be better instructed than they are at present

present in the cavalry and infantry ; for there are colonels of infantry that become *marechals de camp*, who never have commanded for twenty-four hours, nor even ever made a body of fifty troopers go through their evolutions. His pay will be three hundred livres *per* month. The lieutenant-colonel will continue as such, and be among the number of the hundred and twenty. The King at present will nominate to that dignity the first commanding officers of battalions of infantry : he will continue to assist the colonel in all his functions, and enjoy, in his absence, the same prerogatives he has. For the future, the oldest commandant of each regiment is to be preferred to that rank. There is no doubt, but that a lieutenant-colonel, who has a view of being preferred to the rank of general of a legion, and knows that his fortune depends not on the caprice of private persons, yet that he cannot come to the rank, unless his good service is certified to the King by the colonels of the legion as well as the general ; I say, there is no doubt but that such a lieutenant-colonel will sacrifice every thing for obtaining that rank, and solely apply his mind to the discharge of his duty. He will not affect being in a bad state of health, nor neglect his profession, in order to obtain a King's lieutenancy, provided he finds himself fit to be preferred to a legion. And I am certain, that every lieutenant-colonel who then would ask preferment, ought to have

have his demand granted ; for he would not make it but with very good reason. His pay will be two hundred and fifty livres *per* month. This is enough to make him live comfortably.

The commanders of battalions will likewise keep their commissions ; and in order to increase their number to four hundred and eighty, the King might, without having regard to seniority, chuse the rest from among the captains of infantry, on their being proposed as above mentioned. These commissions, for the future, will be filled up by chusing such as have most applied themselves to the service. They are to have two hundred livres *per* month, which will enable them to live in a genteel manner. This rank will offer the first opportunity for discerning better the talents of an officer, who, not having any longer a company of his own, will entirely give himself up to his duty and the discipline. On his coming to that rank, he will likewise be in a condition, on account of his age and functions, to instruct and apply himself more in whatever concerns the business of the soldier. Besides, it is certain, that, taking from the colonels, lieutenant-colonels, and commanders of battalions, the enjoying of companies, they will be made to give themselves entirely up to the service ; they will be delivered from all complaisance or interest, which oftentimes causes them to trespass against discipline, and makes them act with respect to it, as our good  
*majors*

*majors* act at present. From among these commandants of battalions, lieutenant-colonels, and even adjutants and captains, hence forward, the major of the legion will be taken, whose employment will be the same as that of a brigade-major; which last commission, on account of the former, will be entirely suppressed. An allowance of six thousand livres is proposed to be given him. This will appear a considerable one, but his employment is not less so: there is a necessity of his being in a condition, even in time of peace, to keep horses suitable to his rank, and convenient for his employment, and that he may always be kept in readiness, and habituated to command on horseback. Moreover, he will oftentimes be obliged to go about from one garrison to another, whenever the legion is separated; and it is fit he should be no more a pensioner of the captain's, as the same is now practised, under the colour of saving the expences of secretaries and others. In short, I thought it a matter of importance to make this employment desirable, which requires so much pains and abilities. Besides, there will be no more than thirty of them in the infantry; and it is to be hoped, that at present a sufficient number of officers will be found capable of being intrusted therewith, and that, in process of time, many more, in much larger proportion, will qualify themselves for this employment. To this time the majors,  
adjutants



adjutants and subadjutants, have been, as I may say so, solely charged with all the most important and fatiguing duties of the service; nevertheless their allowances have been very insignificant in time of peace, and still more so in time of war; which makes it impossible for many officers, that would be very fit for this employment, to apply to it. — The adjutants will remain such, and do the same duties they do now. They will have an allowance of eighteen hundred livres each; by means of which, and having a view of being preferred to the majority of a legion, they will not seek to quit their commission for a company, but stick close to their duty; which will become more agreeable to them to execute; because, instead of being constantly contradicted in their functions, as they are at present, they will find themselves supported and countenanced by the general of the legion.

As for the subadjutants, that post will be filled up by such ensigns and lieutenants as will be chosen for this new commission; which even at this time is executed by them, but without any allowance, and is the occasion that none apply themselves to it, and that frequent change is made in the persons that take it upon them. — They will have sixty livres *per* month. With such majors, adjutants and subadjutants, we may be sure, that the military laws will be equally and uniformly observed in every corps; because these officers are

the life of discipline, and will depend more on the general of the legion than the colonel.

As to what relates to the captains, lieutenants, and ensigns, they will remain such as they are at present, and do the same duty. The condition of a captain in the legion is better than it has been hitherto, considering the lessening of their ordinary expences, the augmentation of the gratification-money, and that which is given for bringing recruits to the corps. In short, all the officers will have wherewithal to live up to their ranks; but these views are the only means that can make them stick to their profession. Besides, it is certain, that, as they are a little more easy with regard to their allowances, they will not sacrifice to a base lucre that duty, which now becomes of much greater importance to them.

As for the soldiers, it is known, that they are just such as they are made to be, and certainly they will be good soldiers. The captain will have it in his power to keep up his company, and so many people will be concerned in having an eye upon it, that it will be impossible for him to be wanting in it in the least point.

The light-armed men must always be chosen from the common companies of battalion-men; they ought to be young, alert, well-limbed, stout, and well-exercised in firing. These men will be of great service in the day of battle, and for all enterprises that require a quick and brisk execution. Their captain  
must

must only have a brevet as lieutenant, and not be preferred to a company in the battalion, till after his having distinguished himself at the head of his company of light-armed men.

The horse-grenadiers are to be composed of all those brave soldiers that are known as such, and are no more in a condition to serve afoot, either through infirmities or wounds received. They are likewise to be taken from the companies of the battalion, and their officers from the regiment, with approbation of the colonel. This troop will be of great use, not only in giving to all the officers of the legion an idea of the service of the cavalry, but serve as detachments, where there is need of light troops, that can be depended upon. Besides, this troop must always be complete, and can march upon occasion where necessity requires only a small body of cavalry. But, above all, in the day of a general action, it will be infinitely useful, and I do believe it in such a moment capable of deciding the fate of a battle, as will be shewn hereafter. The captain will have the same allowance as a captain of dragoons has now; and thus he will be very well for a captain of a regiment of foot. The number of grenadiers on foot will be less than they are now, and will be at least as good. I hope the light-armed men will serve to spare them a little; considering, that now-a-days a general officer can scarce

R r 2

make

make a step unless he has a convoy along with him, nor take a walk, where grenadiers are not ordered to march and attend him, without being of any service. By means of the light-armed men they will be delivered from these unserviceable fatigues, and we shall preserve people that are only for occasions of importance, and where there is a necessity for men of known bravery and steadiness. Thus they will become still more serviceable than they are at present. Their captain will be he that has served the longest of any in the regiment; and by his rank he will naturally be of an age sufficient to serve still better than the most part of those now-a-days, who are at the head of a grenadier company.

### P A R T III.

#### Of the Appointment of the Legion.

**B**Efore I determine the order in which a body of men are to march, form, make their manœuvres, fight, and incamp, it is necessary to examine the nature of their arms, and how they are composed; to consider which is the chief use they may most commonly and usefully be employed in; to give it, agreeable to this, a convenient and advantageous

geous disposition; and from thence to draw all the principles of that order in which it is to fight, form itself, make its *manœuvres*, march, and incamp.

The legion is a light body, mixed of infantry and light horse. The infantry is of two kinds, one part heavy, the other light. I believe one may express one's self thus on this head. The common infantry is that which makes out the principal part, and, as I may say, the whole legion; for, of three thousand eight hundred grenadiers and soldiers it is composed of, there are three thousand two hundred soldiers, armed and accoutred in the manner as those of our regiments. It is in consequence of this number, and the sort or nature of the infantry that composes the legion, that it must be looked upon as a corps, whose principal destination ought to be to fight in line. It will doubtless be made use of in the line of battle to several other purposes; but these are subsequent ones, and of less importance than the former. It is therefore needful to find out the best disposition in which it can be put for fighting in line, and to lay down to these different armed troops the method to support and assist each other reciprocally.

I have said above, at the end of the first part of this treatise, and I believe have proved it, that the order in which our battalions at present are drawn up, is bad, and contrary to  
all

all good principles. Their great extent renders it difficult for them to move, and extremely liable to *floating*, disorder, and confusion. Our troops having then frequently to do with others, whose fire is very formidable, to make ours correspondent with theirs, we have thought proper to adopt the same method as foreigners. Whether this is a right or a wrong way, I shall not determine here. It is sufficient to say, that we intended by this means to have our fire as brisk as that of the enemy. Therefore it will be proper to accustom them to be drawn up four deep, as we ordinarily do, in order to avoid that *floating*, and slowness of motion, which thin and extended corps are liable to. The four battalions of which a regiment will consist, will each be at the distance of twenty feet from one another, and the distance between each regiment will always be double. Whatever motion a battalion makes, or whatever ground it meets with, nay, let any accident whatsoever happen to it, all this, by means of these intervals, will have little or no influence over the rest of the regiment or of the legion; and as the intervals are very small, they will still draw the same assistance and defence from each other: for it cannot be supposed, that the battalions of the enemy will venture to break themselves to get between two battalions, the distance being too small. The troop of horse will be divided into two, each division consisting of  
 twenty-

twenty-four grenadiers in two ranks; one of which will be placed at the distance of fifty paces in the rear, covering the interval of the two battalions on the right; the other, at the same distance, covering that of the two battalions on the left; and all the company of foot-grenadiers covering the interval in the centre of the regiment. This disposition will be of prodigious advantage in an engagement. The legion being chiefly a body of infantry, will commonly be drawn up opposite to the infantry of the enemy. It will be more useful, and preferable in that case, that the grenadiers, who are choice men, experienced and of known bravery, be placed beyond the reach of the enemy, who sometimes fire before the engagement begins; and as they would not be of greater use than the common battalion-men, (the horse-grenadiers would be of less service), if they were drawn up in the line, it is for that reason proposed, to place them at fifty paces distance, in the rear of the battalions. Another advantage that will arise from this disposition is, that the men in the battalions seeing behind them, and within their reach, three parties of their comrades, on whose steadiness and intrepidity they can rely, and which oftentimes they have been witnesses of, will be satisfied, that they will be well supported; and that, in case of necessity, their retreat is sure; and therefore will fight with much greater resolution. They likewise know,  
that

that these grenadiers, who look upon the legion as their native country, and upon themselves as having the honour of it to keep up, will not suffer, without punishment, any soldier to take to flight, but make him repent his cowardice, at the expence of his life. Thus, we shall have a method almost certain, of keeping the men up in their ranks, in the face of the enemy, without posting in the rear of the battalions such a great number of officers, who commonly are of no service ; because they being on foot, and fewer in number than the deserters, instead of stopping them, are themselves carried away, without being able to withstand their impetuosity.

By this method of retrenching part of our officers, we shall, notwithstanding this diminution, follow that universally-received maxim in France, *viz.* That the valour and goodness of our infantry depends upon the great number of officers that are at the head of our battalions, as it is only there that we make use of them ; for, in our detachments, we never order more than two officers to fifty men. According to our disposition, we need put but few in the rear of the legion, and at least as great a number in the front-rank as we do at present. As for the light-armed men, I suppose that they will have proper arms, and be thoroughly exercised to fire well, and to load briskly. When the legion is drawn up in order of battle, they will post themselves a hundred and  
fifty



fifty or two hundred paces in the front, in hedges, houses, thickets, and in all other places that shall be found proper to post them in, so as to be within reach of firing on the enemy. It will be impossible for battalions that are exposed to their fire, to stand it long without being prodigiously incommoded; and in that case, they have no other course to take, than to retire or advance; for should they send any party of horse to dislodge them, they must encounter a shower of musket-balls from them and the legion, which will force them to fall back upon their own infantry with precipitation. If the enemy retires, the light-armed men immediately advance upon them.

Thus the enemy will be in a very dangerous situation, the event of which the circumstances of time and place must decide. Their only means to get rid of the light-armed men, will, on the contrary, be, to march up to them, provided the artillery doth little execution, and the fire of the battalions do not carry so far, nor so just as theirs. They will in that case receive, upon their march, an incredible fire from the light-armed men; which they will continue, retreating at the same time, and rallying in the rear, or in the intervals of the battalions. Hereupon the battle begins; and if the legion is forced to give way, its retreat is covered by the foot and horse grenadiers; who, should the enemy be disordered by the charge, (which very often

happens in such cases), may alter the face of affairs in a moment, and gain a completer victory. For it is impossible, that a body of men that are a little in disorder, and find themselves attacked by an excellent cavalry and good infantry, can rally so quickly as to withstand the shock. And it is certain, that this reason obliges the enemy not to disperse, and to advance gently; by which means the infantry of the legion can rally with greater facility.

If, on the contrary, the legion overturns the enemy's infantry, the light-armed men, and the foot and horse grenadiers, advance immediately through the intervals, and it must be irreparably lost: the defeat is total, without there being any necessity for the legion to change the least thing in its order of battle, or of putting itself in any disorder whatever.

There is likewise no doubt, but that, by means of the light-armed men being posted in the front, the whole army may march and move quietly behind them, without the enemy being able to discover its motions: for the continual and well-adapted fire they will be accustomed to make, will certainly keep off the most prying, let them be ever so bold; and the soldiers being taken up with observing them making their *manœuvres* and firing, will not be able to distinguish the proceedings nor position of the enemy, and on that account

count be the more quiet and steady in their ranks.

The legion thus disposed, will have still greater advantages, which the legionary general will know how to make proper use of, according as occasion shall require, and which would be too tedious to relate here. What I have been saying sufficiently determines the order in which it should form, march, make *mæuvres*, and fight.

I am of opinion, that there are certain principles for drawing up a body of men in order of battle, and putting them in the most advantageous order for the use they are designed, and that it is necessary they should never be departed from.

In the first place, Great care ought to be taken, that the commanding officer of each corps or body of men, be easily seen and heard, and that he may be able to observe the smallest motions the officers and soldiers make that are under his command.

Secondly, That the subaltern officers be equally distributed every where, and that there always be some of them in every place where they can be useful, in all motions or evolutions that the corps performs.

Thirdly, That those men that mess and incamp together, be drawn up together in action; because, being thereby more intimate, and more closely connected with one another, there will be a greater inducement for them

to support and assist each other reciprocally. Besides, they will be more afraid of incurring the reproaches and flurs that would always be against them, should they behave improperly.

Fourthly, That all the soldiers be drawn up in such a manner as to enable them readily to know again their rank and file, on purpose that they may, with more expedition, be formed again in order of battle, in case any accident should cause a disorder.

In the fifth place, That they be within a proper distance, so as to be always under the eye of the respective commanding officers; because they must have a greater confidence in them, as their good or bad qualifications are more known to them, than the others; and as their actions will be by them more severely punished, or more certainly rewarded.

In the sixth place, That each body of men be divided in such a manner, and its divisions so distinctly marked, that it may be easy for the first officer, that shall have a right to command the corps, to know them, to distinguish them, and put them into motion.

In the seventh place, The best and most experienced soldiers must be posted in the most dangerous places, as in the front-ranks and flanks, which commonly are the least covered, and more exposed than the rest of the battalion, and are oftentimes the first that are unsteady and that begin the disorder.

In

In short, That the order in which a body of men is drawn up, must be fixed, and as little altered as possible, in order that every body may be the better instructed in the different motions they have to make according to the different circumstances. In consequence of all these principles, I give here the order in which it is proposed a legion is to be drawn up.

The custom of calling troops, be they legions, regiments, or companies, after the names of provinces, or commanding officers, ought to be abolished, it being subject to change; whereby, after a certain time, it can no more be discovered in history, which were the troops that signalized themselves by memorable actions, and thus there will be one motive less for emulation. It is more simple and convenient to name the legions, regiments, battalions, and even the companies, by *the first, the second, the third, &c.* and I shall henceforth only make use of these terms.

The thirtieth legion will, in time to come, be as much known in history as the first; and we shall easily call to mind its actions, as soon as we see or hear it named. It must be allowed, that there is something noble and more grand in this simplicity, than in the custom now prevailing, of using particular names.

The first regiment of the legion will take post on the right, the second on the left, the third on the right, and the fourth on the left,

left, as the same is now practised in posting regiments in brigades. The battalions of the same regiment will take rank in the same manner among themselves, the companies of the same battalion likewise so, and the squads of the same company in like manner ; by which means one may at the first view know where the third squad of the first company of the second battalion of the fourth regiment is posted, and so for the rest. This is much more easy to be recollected than particular names, which may have a likeness to one another, or are difficult to be remembered, far less pronounced ; and it is likewise infinitely more commodious for him that commands, as well as the foldier.

Whenever a legion is drawn up in order of battle, the legionary general (the general of the legion) and the major post themselves advanced farthest in front, before the interval of the centre ; the colonel advanced before the interval of the two battalions on the right of his regiment, and the adjutant near him ; the lieutenant-colonel advanced before the interval of the two battalions on the left, and the subadjutant near him. If they are the regiments on the left, the colonel will be on the left, and the lieutenant-colonel on the right. The commandant of the battalion takes his post advanced before the centre of his battalion ; the captain of every company on the right or left of the front-rank of his company, according  
as

as it is posted on the right or left ; the lieutenant on the other side of the captain, on the left of the rear-rank of the company ; excepting the lieutenant of the fourth company, who posts himself on the right of the second rank, and the colours will be his file-leader. The lieutenant may thus, in case of need, take them or defend them. The first serjeants of the two first companies will be on the right or left of the rear-rank behind their captains, in order to be at hand to receive their orders, or see them executed. The two others will be on the left or right of the third rank of their company before their lieutenant, for the same reason as the two first ; the first serjeants of the two other companies will be on the right or left of the second rank of their companies behind their captain ; which will make a file of officers and serjeants between the first, third, second, and fourth companies, as may be seen by the plan hereunto annexed.

The last serjeant of the fourth company will be placed on the right of the third rank of his company, behind his lieutenant ; the second serjeant of the third company behind him in the rear-rank, and the lieutenant behind him, out of the ranks. By this means, in case the battalion is obliged to march-by the rear, there will be an officer advanced before the centre, two others in the front-rank, and serjeants on the flanks, for conducting them.

For

For the particular disposition of the squads, the corporals will all be in the front-rank, and the lance-corporals in the rear-rank. The ten private soldiers will be thus divided; the two first in the second and third rank, the two following in the front-rank, the two next in the rear-rank, the two after them in the second, and the last two in the third rank.

This is a detail of the whole order in which a legion is to be drawn up. I take it to be founded on principles which ought to determine and fix it. There will always be a piquet ordered by each regiment, but the officers and private men will join their companies till they are called upon for that duty; for, in case there should be necessity for a body of fifty men to march without loss of time, it is to be supposed it would be for some expedition, on which the light-armed men or foot-grenadiers might be sent. There is always plenty of time, unless there be a very urgent necessity, to order the piquet from the ranks. As for the foot-grenadiers, they will be drawn up in the same manner as the battalion-men are, and the horse-grenadiers will be in two ranks: for, as they will seldom have to withstand the cavalry, but are designed to fall upon the infantry on its giving way, they will throw themselves more readily among them, and get sooner round them, by being in two ranks, than if they were in three or more. The captain and the quartermaster place themselves



themselves at the head of that half of the troop that is on the right, and the lieutenant at that of the other half on the left. The drums will be placed upon the flanks of the battalions, two on each flank.

I shall not speak here of the marches, reviews, parades, nor evolutions. I will only mention, that it appears essential to me, in every particular, and at all times, to keep to the same order in which the troops are to fight; first, because the changing of it is of no manner of service; secondly, it is much more easy, chiefly for young officers or new-raised soldiers, to know again their places in case of disorder, or on rallying, if they are never used to any other but them. Besides, it is dangerous to shew them any thing that is useless in war, because after a long peace they know nothing but that, and will make a practice of it. Hence it is that we have such a great number of corps that are good for little else but reviews and parades; and which nevertheless are made use of in the day of action.

As for the front of the camp, its extent is fixed by the ground a legion, formed in order of battle, takes up. I believe this to be the only rule which ought to be followed, in marking out the particular camp of a body of men, because it is to be supposed that they may be attacked there, and have occasion to form and fight at the head of their camp, and therefore that it would be dangerous for them,

should they be either too much crowded, or too much extended on their ground. It is on this account very essential, to have regard to the decrease of the troops in a campaign, in order to contract their camp; which may be done by making the double streets narrower, when their depth is well proportioned to the extent of the front. In my opinion, there is not sufficient attention paid to this article; and I cannot well understand, for what reason one hundred and ten paces are commonly allowed for the front of the camp of a battalion, including therein its interval. The ground a single man takes up in order of battle, is usually about two feet; and as our proposed battalions have fifty-three men in front, each ought to have an extent of one hundred and six feet, every small interval twenty feet, as I have already observed, and every great one forty; which will make one thousand six hundred and ninety-six feet for the sixteen battalions, two hundred and forty for the twelve small intervals, one hundred and sixty for the four great ones, including that on the left of the legion; in all, two thousand and ninety-six feet for the whole space, computing from the right of the legion to the right of the next that joins it; which ought to be the extent of the front of its camp. As the regiments are entirely alike, it will be sufficient to point out the camp of a single one. The company of the grenadiers will

will incamp alone on the right of the regiment, as is now practised; the company of light-armed men will incamp in the same manner on the left, the first battalion on the right, the second on the left; and the companies will all incamp, just as they are placed in the order of battle; observing likewise, that, in the regiments and battalions on the left, the left will always be the post of honour. The companies of battalion-men will incamp two and two, with the rear of their tents towards each other; which, with the detached companies of grenadiers and light-armed men, will form nine double streets; each of which will be thirty-six feet wide, and six feet more to the street in the centre: seven feet will be allowed for the pitching of the tents of each detached company, and sixty feet for the great interval; which makes,

	Feet.
For nine double streets, - - -	330
For eight spaces of ground for pitching the tents of sixteen companies, in- camping two and two, with their rears or boots towards each other,	120
For the two detached companies, in- camping with the boots of their tents facing each other, - - -	14
For the great interval, - - -	60
	<hr/>
Total of a regiment, —	524
	<hr/>
And of a legion, - - -	2096
T t 2	which

which is precisely the ground it takes up in order of battle.

The company of horse-grenadiers will incamp, and form one double street, ten paces behind the kitchens in the rear of the centre of the regiment: it will be forty-two feet wide, from one horse to the other, and twenty-five paces deep; by means of which they will be able to form in the rear of the centre of the regiment, when they take their arms. The kitchens will be next to those of the soldiers; the officers tents in the rear and aside; the bells of arms and the colours will be placed in the ordinary manner.

By this disposition, a legion will take up, from the right to the left, two thousand and ninety-six feet; and six battalions, at the rate of two hundred and seventy feet each, and sixty for their interval, as is given them at present, will occupy but one thousand nine hundred and eighty feet, though they are more numerous in serjeants, grenadiers, soldiers, and drums, by two hundred and forty men.

If there is a necessity to outflank the enemy's battalions, the intervals are only to be enlarged \*, which is a *manœuvre* great battalions cannot make in presence of the enemy: the troops of horse may also be detached to harass the enemy on their flanks; which is impossible to be done with the infantry on the footing it is at present.

\* See plate 13. fig. 41.

Lastly, great advantages may be drawn from these *manœuvres*, and several others.

## P A R T IV.

### Of the formation and expence of the Legions.

I Said, in the beginning of the second part of this treatise, that it is necessary to look out for easy and ready methods, agreeable to the genius of the nation, and that will at the same time have the effect required.

I think I have proved, that the legion has these qualities. It remains for me, to shew the facility and quickness with which it may be formed, and that the changing our regiments into legions may be easily executed, during the short interval between the end of this campaign and the beginning of the next. What will be still more surprising, is, that the King will save considerably in the expence his French infantry cost him.

As it is to be supposed, that the King, in the present circumstances, will increase his army rather than lessen it; I shall give a plan of the change that is to be made of our hundred and sixty-two battalions into thirty legions; which very nearly makes out the same quantity

quantity of infantry, and an augmentation almost equivalent to the number of horse-grenadiers.

It seems to me, that the clearest way of representing to one's self the plan, will be, by drawing up a state of all the different commissions and ranks that will be in the legions, and of such as now subsist in our regiments. By this means, it will be seen at first sight, how great the number of favours is, which the King, by this new disposition, will have an opportunity to dispose of, and how many men, what kind and rank, the augmentation will consist of.

It will be seen, by the annexed plan, that our hundred and sixty-two battalions, making out in all but 110,970, and the thirty legions being 116,190 men strong, by augmenting our companies of battalion-men two men each, our regiments would have the number for forming our legions, wanting only thirty-six men; which may be looked upon as sufficient and equivalent. As for the officers, though it seems that three hundred and fifty-five must be reduced, this reform ought to be regarded as none at all, because it will naturally take place, by not filling up the vacant commissions at the end of the campaign. Four hundred and twenty-four captains will be promoted to higher ranks, and one hundred and sixty-seven lieutenants appointed to vacant companies; by which means, about the tenth part of the officers

officers that are now in the King's service will advance one step.

There are required, for making up each legion (supposing an augmentation was made of two men *per* company) five battalions and two fifths of another, which may be estimated at six companies \*, eighteen battalion-men, and eighteen grenadiers. The last legion will recruit thirty-six men more than the other, to make up the complement. If, at the same time, the King should approve and order this *project* to be put in execution, it would be easy, and very necessary, to give in, before the month of December, a circumstantial plan of the measures that ought to be taken for this disposition, and which ought to be relative to the actual position of the troops on the frontiers ; insomuch that every thing may be concerted and disposed for the filling up of all these commissions before the 1st of December, the *ordinances* be given out during the first fifteen days of that month, and the whole change be executed on the 1st of January 1745. If it should please the King to make a more considerable augmentation in the troops, this would not be any more difficult to be brought about. They must begin, by causing the captains of the battalions recruit the number of men which should be necessary to augment the

\* In 1744, the battalions consisted of 17 companies, *viz.* 16 companies of fusileers, at 40 men each, and one company of grenadiers at 45.

infantry ; and, in consequence thereof, the legions could be formed in the manner as has been before mentioned.

Concerning the expence, as it is requisite to compare that which the legions will come to, with that which the regiments at present cost ; I find the treating of this article much more difficult than any other ; because there is nothing so obscure, nor so perplexing, the distribution of the *military finances* in France ; insomuch that many regiments have been obliged to take skilful clerks out of offices, making them their adjutants, in order to disentangle their affairs and accounts : And as for the *general administration*, there is not one clerk in the war-office, that is charged with this branch, let him be ever so understanding, experienced, and capable, who doth not himself acknowledge, that he is every moment put to a stand by new difficulties, and that it is almost impossible the present service can be without such perplexities. By this new regulation, matters will become infinitely more clear and better settled, the administration and distribution of the finances be simple and easy, and remain such, equally in time of peace or war.

I have, in speaking of the officers, given those reasons that engaged me for allowing them a larger pay than they enjoy at present : it is from the same motive, that I propose to augment considerably the pay of the surgeon,  
who



who is to have a mate under him, and likewise that of the chaplain: it is also on that account, that I propose an allowance to be made to the drum-major, and another to the drum of every company, out of the King's pocket, to the end, that every captain being thus no more obliged to every *idle* expence, may enjoy his whole pay; which, as the case now stands, is considerably diminished in certain regiments.

It is likewise proposed to reduce the provosts and quartermasters; these employments being never filled up, and absolutely useless to us.

I have joined a table of the pay of a legion in time of peace. I have mentioned nothing, in its detail, of the expence for horses for the horse-grenadiers; because the price varies extremely according to the time and places; and as I speak in this detail of the expence of a like body of dragoons, this article is not necessary to the calculation I am going to make.

The ninety-seven regiments, or 162 battalions, are paid as follows.

	Livres.
Seven regiments, of four battalions each, cost	3,510,010
Ninety battalions, commanded by colonels, cost	11,448,720
Forty-four battalions, that have no colonels, cost	5,437,784
Thirty-three provosts places cost      -      -      -	46,728
Eight regiments of dragoons cost      -      -      -	1,392,680
	<hr/> 21,835,922
Besides, there are a great many pensions affixed to foot-regiments, of which I could not learn the exact sum; also a great number of <i>routes</i> for the recruits of the dragoons, which, if this regulation takes place, will cease; I shall estimate these at	164,078
	<hr/> 22,000,000
From which deduct the expence of a legion, according to the former calculation,      -      -      -	19,346,040
	<hr/>
Balance,      -      -      -	2,653,960

Thus, when we have compared the total expence of ninety-seven regiments of infantry, and eight regiments of dragoons for one year, and the charge of the legion for the same time, there is a balance or saving on the side of the legion of 2,653,960 livres.

But as no pay will be allowed to officers, during the time of their absence, unless it be to captains and lieutenants that are a-recruiting, and others in extraordinary cases; supposing that all the colonels serve two months *per annum*, this will save 360,000 livres. And I believe I shall not carry my calculation too far in estimating this article at Liv. 746,040 Which joined to the above differ-

ence of      -      -      -      -      -	2,653,960
	<hr/>
Will make a saving of      -      -	3,400,000

The

The ninety-seven regiments of infantry and eight of dragoons, make in all 116,970 men of infantry ; and by this calculation the thirty legions, by retrenching from the above number, 120 quartermasters of horse-grenadiers, that are not reckoned in the regiments of dragoons, make in all 116,070 men. By this calculation the thirty legions will have nine hundred men less than the regiments whose expence I have been computing. Thus I shall estimate the expence for the nine hundred men on the legionary footing at Liv. 150,000  
Remains for the whole difference 3,050,000

which saving makes out more than the seventh part of all the expence of the troops in question, notwithstanding that there are large appointments, and their pay in general considerably augmented.

As for the pay in war, the calculating it for a legion will be very easy and plain. It is proposed to allow it the same pay in winter as in summer, and that, in the month of January every year, all the legions that have made the preceding campaign, that is to say, the staff, ensigns, surgeons, and chaplains, the lieutenants of the foot-grenadiers, battalion-men, and light-armed men, shall receive four months pay, to serve them instead of camp-equipage and utensils.

	Livres.
The captains of horse-grenadiers will have	4000
Their lieutenant - - - -	400
The quartermaster - - -	200
The captain of foot-grenadiers - -	600
The captain of the light-armed men -	600
The captains of the battalion-men for re- cruiting, camp-equipage, and utensils	1000

The forage during the winter will be furnished on the following footing :

					Rations.
To a general	-	-	-	-	16
a major	-	-	-	-	10
an adjutant	-	-	-	-	5
a subadjutant		-	-	-	3
a colonel	-	-	-	-	10
a lieutenant-colonel		-	-	-	8
the commandant of a battalion	-	-			6
an ensign	-	-	-	-	2
a surgeon	-	-	-	-	2
a surgeon's mate		-	-	-	1
a chaplain	-	-		-	2
To a captain of horse-grenadiers	-	-	-		6
a lieutenant	-	-	-	-	4
a quartermaster		-	-	-	2
a grenadier	-	-	-	-	1
To a captain of foot-grenadiers, bat-					
lion-men, or light-armed men	-	-			4
a lieutenant	-	-	-	-	2

During

During the course of a campaign, the grenadiers and soldiers will have bread and meat on the same footing they receive it now. It were to be wished, that the deductions for the meat were as little burdensome to the grenadiers as to the soldiers. As for the officers, they will have leave to take the same number of rations of bread as the King gives them now, in paying for them as the soldiers at the rate of two *sols per* ration, the deduction whereof will be made by the treasurer of the army from their pay.

It is useless to make a general calculation of what this augmentation will amount to in time of war; because it depends on the number of legions employed in the field. It is on this account, and because I have not collected all the necessary materials, nor have I time now for such a task, that I shall not make a comparison between the expence of the legions in time of war, and that of the regiments: but it is easy to be perceived, that the saving will be much more considerable than in time of peace; because the number of officers is less, the brigades are stronger, there are no field or staff officers of dragoons, and there is not one double commission, as is common at present. Such are the *majors of regiments*, *chiefs of brigades*, and *particular majors*. *Colonel-brigadiers* receive also pay for both these capacities; in so much that a *brigadier-colonel* of infantry has  
fix

six and twenty rations of forage a-day, whilst a *marechal de camp* has but twenty.

Lastly, It is evident, that the expence of the legions will be much inferior, and much clearer than that of the regiments, and the general administration of the funds provided for them, much more plain and easy.

The legions will besides have many other advantages, which use will make appear, and which their very circumstances don't allow me at present sufficient time to particularize. It is certain, that such a revolution in the infantry, the very moment that it is carried into execution, will raise again a spirit among the officers, make them apply close to the service, revive their emulation and ambition; and I dare even assert, that the effects of it will be perceived from the very beginning of the next campaign.

## L E T T E R S.

*Marshal Saxe to the Chevalier Folard.*

*Camp under Courtray, August 11. 1744.*

I Received, my dear Chevalier, the letter with which you honoured me of the 2d of this month. The marks of your remembrance flatter me infinitely, and I should think myself happy to have you with me; but you know, my dear Chevalier, these things do not depend on us. I could wish, if it were possible,

sible, to have in my army many officers like him who defended the *cassine* of Moskolini, and assure you I should esteem them much.

The enemies intended to catch me here; but having learned that I had caused patch up the old fortifications, and added some palisades to the body of the place, and barriers to the gates, they changed their mind. They have cunningly enough taken a very imprudent step, marching by their left, between my flank and the river Scheld. I was informed at night, and marching by break of day to cut them in two, I got intelligence at the stone-bridge, at seven o'clock in the morning, that they had all passed the rivulet by six, having marched the whole night. They are gone to incamp on the plain of Cizoint. I have provided Lisle with every necessary for a good defence; and I have continued here, suspecting their design to be, to force me to return to our own territories, and not live upon the product of theirs. I have sent M. du Cheyla with twenty-three squadrons, to lie under Lisle, and caused the Count d'Estrées, who was at Maubeuge with eighteen squadrons, advance under Douay, to keep them in awe, and hinder their sending detachments over the Escarpe and the Deulle, to harass the country. This method has answered hitherto; none of their troops have passed these two rivers, through fear of being cut off by the two corps.

We

We have been eight days in these positions ; how it will end, I know not. They dare not, by advancing farther, leave me between them and their ovens, which are at Tournay. Mean time I live upon their country ; which I think is pretty well for one who is only on the defensive.

Adieu, my dear Chevalier ; I embrace you with all my heart. Favour me sometimes with your letters.

LE COMTE DE SAXE.

*Marshal Count Saxe to Count d'Argenson.*

*Paris, February 25. 1750.*

**A**greeable to his Majesty's intentions, which you acquainted me with, I repaired to the *Invalids*, and have seen there the different detachments assembled to perform their exercise. The detachment of guards, which M. de Bombelles has disciplined, marches the best, and goes through the exercise with the most grace. The exercise of Count Maillebois pleases me infinitely : he has a method of making his men prime their pieces, which, in my opinion, will soon be followed by many ; because a most troublesome motion, when the bayonets are fixed, is thereby avoided ; and of all the alterations that may be made in the exercise, none is more proper and better to retrench, than the an-  
cient



cient method of priming, in order to substitute this in its place.

The exercise which the Duke de Broglie has introduced in his detachment, is a copy of that of the Prussians. Cartridge-boxes and priming-horns should not be allowed to that detachment, if any alteration is to be made in this infantry. I am not for making the swords be wore like hangers; the method introduced by M. de Bombelles, is the best and least troublesome in all our infantry.

Alsace has the true Prussian exercise. It is a mistake to believe, that short firelocks are requisite for executing it; ours are well made, and serve the purpose.

The exercise of Beauvoisis is very fine, and extremely well executed. But to tell you that it is the best, would be taking upon me the decision of a very important question. That branch, which too indifferent an attention is given to in France, has for many years employed the thoughts and application of the most able military men in Europe. It cannot be denied, that the King of Prussia's success against troops, which, for these fifty years, have always been at war, and have been looked upon as good troops, cannot be ascribed to any other thing, than that application, and the excellency of their discipline and exercise.

The choice of exercise, therefore, is not at all a matter of indifference. They have in Prussia made it their business those forty years,

with an uninterrupted application ; and the reigns of two kings, who always bestowed their greatest attention on the military, have been entirely taken up about it, with the assistance of their generals, whom no object of interest or pleasure can divert from the duty and functions they are charged with.

The different motions of exercise, which are to be performed in open ranks and files, are relative to the manner of making an attack or charge, when the battalions are in close ranks and files, which is the position they ought to be in when they are formed for engaging. At their exercises on reviews and parades, the officers must all be on the front of the battalion, and then the ranks and files are open ; but when they are closed to close order, the officers must be in their ranks, and only one officer before the battalion.

The second part of the letter with which you have honoured me, regards the question, Whether the officers ought to be placed in the ranks, or on the front of the battalion ? It is certain, that we always lose, by the fire of our own soldiers, a great number of our officers, in case they are on the front of the battalion, especially in the first engagements after a long peace. In the second place, when the officers are not placed in the ranks, they do not concern themselves so much with their divisions ; and the major, or those that command, cannot distinguish the divisions, on account of  
their

their not being marked out by the spontoons ; and when it happens, that, by their moving and unevenness of ground, they mix, those that command cannot readily perceive where the fault lies ; the subaltern officers are likewise not masters of their men, and cannot prevent their firing ; which is a point of the greatest consequence. For any body of men that fire in the presence of the enemy, is undone, in case that which is opposite to it preserves its fire ; and this is the reason, why those that understand their business well, make the soldiers carry their firelocks shouldered ; because it is more easy to prevent their firing, when they have their firelocks on their shoulders, than when they rest them on their left arms, or march up to the enemy with their arms presented to the front, which is a more dangerous manner of advancing. This is likewise the reason, why the officers are obliged to have spontoons ; for, as they cannot fire, they prevent the soldiers from doing it ; whereas had they firelocks, they might be the first in firing, and the soldiers would imitate them ; because there is but one single shot required, in the presence of the enemy, for making a battalion, a brigade, a line, nay a whole column, fire. There are but too many instances I could alledge, to prove this, and our military men cannot deny it. My duty will not allow me to flatter, in a matter of so great importance as this is. I am obliged to say, that

our infantry, though the most valiant in Europe, is not in a condition to sustain a charge in a field, where infantry of less valour, but better exercised and disposed for a charge, can come up with it. The success we have in battles cannot be ascribed but to mere hazard, or the ability of our generals, in reducing battles to certain points, or attacks of posts, where the sole valour of the troops, and their resolute firmness commonly carry it, if the general knows to make his dispositions accordingly, that is to say, in a manner to be able to support the attacks. But this is a thing which cannot always be done, and which the general of the enemy can prevent you from doing, if he has capacity, and knows your faults and his advantages. What I advance here can be made good by proofs.

At the battle of Hockstet, twenty-two battalions that were in the centre threw away their fire, and were dispersed by three squadrons of the enemy that passed the morass in their front. On the other hand, the enemy were repulsed by the troops in the village of Blenheim, who did not surrender, till after their own armies had retired and abandoned them.

Luzara in Italy was an action where the enemy were retrenched.

Ramillies, a battle in open plain.

Denain was an attack of a post.

At Malplaquet, those troops that were in open plain gave way ; those that were strongly posted,

posted, maintained their ground for a long time, and made the allies horse suffer considerably.

Parma was an affair decided by the attack of the enemy's posts.

Dettingen, a battle in open plain.

At Fontenoy, the troops that were in the plain gave way; those that were posted, maintained their ground.

Raucoux was an attack of posts only. Tho' there was a great plain, the posts alone were attacked.

Lawfeld was a battle in open plain, reduced to the attack of posts.

It is therefore a great defect in any infantry, to be capable of acting only in certain dispositions. This opinion will certainly meet with opposition: but I doubt much, if we have many generals so enterprising as to undertake to march, in an open plain, a body of infantry in sight of a numerous cavalry, and to flatter themselves that they could be able to maintain their ground for several hours, with fifteen or twenty battalions, in the midst of an army, as the English did at Fontenoy, without either throwing away their fire, or even altering their countenance, notwithstanding all the attacks our cavalry could make upon them. These are things we have all seen; but self-love forbids the mention of it, because we well know our incapacity to imitate them.

The

The Romans, differing in this article from all the other nations on earth, made the profession of arms their constant study; and as soon as they perceived methods superior to their own, they renounced them, and adopted the others. Hannibal having found out the defects of his infantry, formed them into legions, arming them, and making them engage after the manner of the Romans; and victory, at Cannæ, was the reward of his prudence.

As to my choice of the different exercises of the several detachments, which the King has done me the honour to ask my opinion of, I must own I prefer that of Alsace. My reasons for this choice can hardly be contained in a letter, and a memorial on this subject would only pave the way to a kind of writing which must be tiresome to you, and which I should chuse to be dispensed with.

# **S C H E M E**, shewing the pay of all the different ranks in a legion, with the total expence for one year.

*Pay per annum* of the staff-officers of a legion.

	Livres.
1 general of the legion, - - - -	12,000
1 major, - - - -	6,000
4 colonels, - - - -	14,400
4 lieutenant-colonels, - - - -	12,000
16 commandants of battalions, - - - -	38,400
4 adjutants - - - -	7,200
4 subadjutants, - - - -	2,880
16 ensigns, - - - -	5,760
1 surgeon, - - - -	1,200
1 surgeon's mate, - - - -	600
1 chaplain, - - - -	900
1 drum-major, - - - -	240
Sum, - - -	<u>101,580</u>

*Pay per annum* of a troop of horse grenadiers.

	Livres.
1 captain, - - - -	1,620
1 lieutenant, - - - -	720
1 quartermaster, - - - -	360
4 brigadiers, - - - -	540
44 private horse-grenadiers, - - - -	5,148
1 drum, - - - -	126
Stock-purse for the troop, - - - -	735
Remounting fund, - - - -	1,100
Sum, - - -	<u>10,249</u>

Total expence of one legion *per annum*.

	Livres.
Pay of the staff-officers, - - - -	101,580
— of 4 troops of horse-grenadiers, - - - -	41,396
— of 4 companies of foot-grenadiers, - - - -	39,792
— of 4 companies of light-armed men, - - - -	32,160
— of 64 companies of battalion-men, - - - -	558,080
Expence of one legion, - - - -	<u>773,008</u>
— of 30 legions, - - - -	23,190,240

Pay

Pay *per annum* of a company of foot-grenadiers, a company of light-armed men, and a company of battalion-men.

	Foot-grenadiers. Livres.	Light-arm- ed men. Livres.	Battalion- men. Livres.
1 captain, - - -	1440	720	1200
1 lieutenant, - - -	720	540	540
2 ferjeants, - - -	432	396	396
4 corporals, - - -	612	540	540
4 lance-corporals, - - -	540	468	468
40 private men, - - -	4680	3960	3960
1 drum, - - -	144	126	126
Stock-purse of the company,	795	795	795
5 mens pay for inlisting-money,	585	495	495
Fund for marching recruits,	00	00	200
Sum, - - -	9948	8040	8720

A legion is composed of staff-officers, four troops of horse-grenadiers, four companies of foot-grenadiers, four companies of light-armed men, and sixty-four companies of battalion-men. The total expence of a legion as in the preceding page.

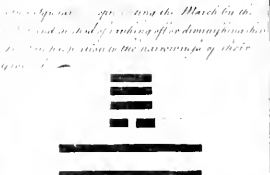
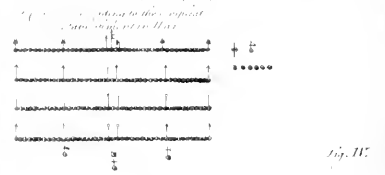
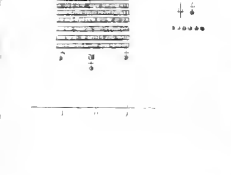
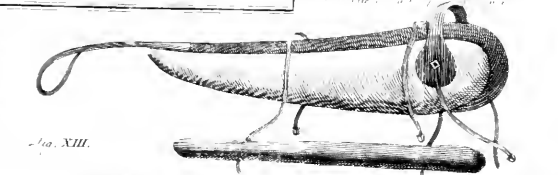
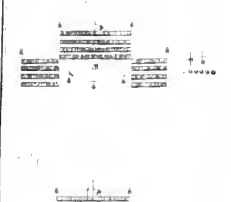
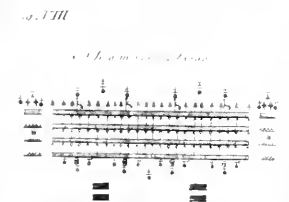
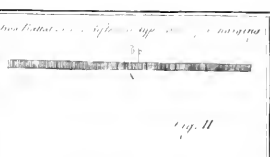
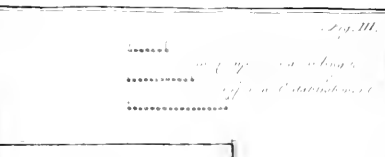
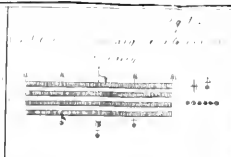
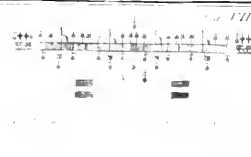
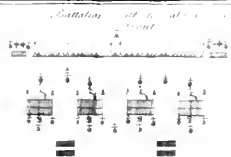
The money mentioned in the above estimates is French livres, about 10½ d. Sterling each, 23 of which, according to the nearest calculation, make a pound Sterling. When we, by this rule, reduce the pay of thirty legions, or 116,190 men, to British money, it gives L. 1,008,271 : 6 : 1 Sterling, being the total amount of their pay for one year, or rather 360 days, as they divide their year into twelve months, each month thirty days, which cuts off five days six hours; but this way of reckoning regards only military payments.

We must further remark, that the sum-total of our tables does not agree with that in the original tables. In summing up the whole, they have omitted several articles, such as, the remounting-fund for horse-grenadiers, and the fund for marching recruits; these two articles alone amount, in one year, for the thirty legions, to 516,000 livres, (above half a million of their money): we have therefore made out our tables according to the data given in the original, and corrected thereby the errors in the French tables.









- A. Major.
- A. Lieutenant Colonel.
- A. Major.
- A. Lieutenant.
- A. Captain.
- A. Drummer.
- A. Sergeant.
- A. Corporal.
- A. Private.
- A. Sergeant Major.
- A. Quarter Master.
- A. Captain at Arms.
- A. Drummer.
- A. Sergeant.
- A. Corporal.
- A. Private.

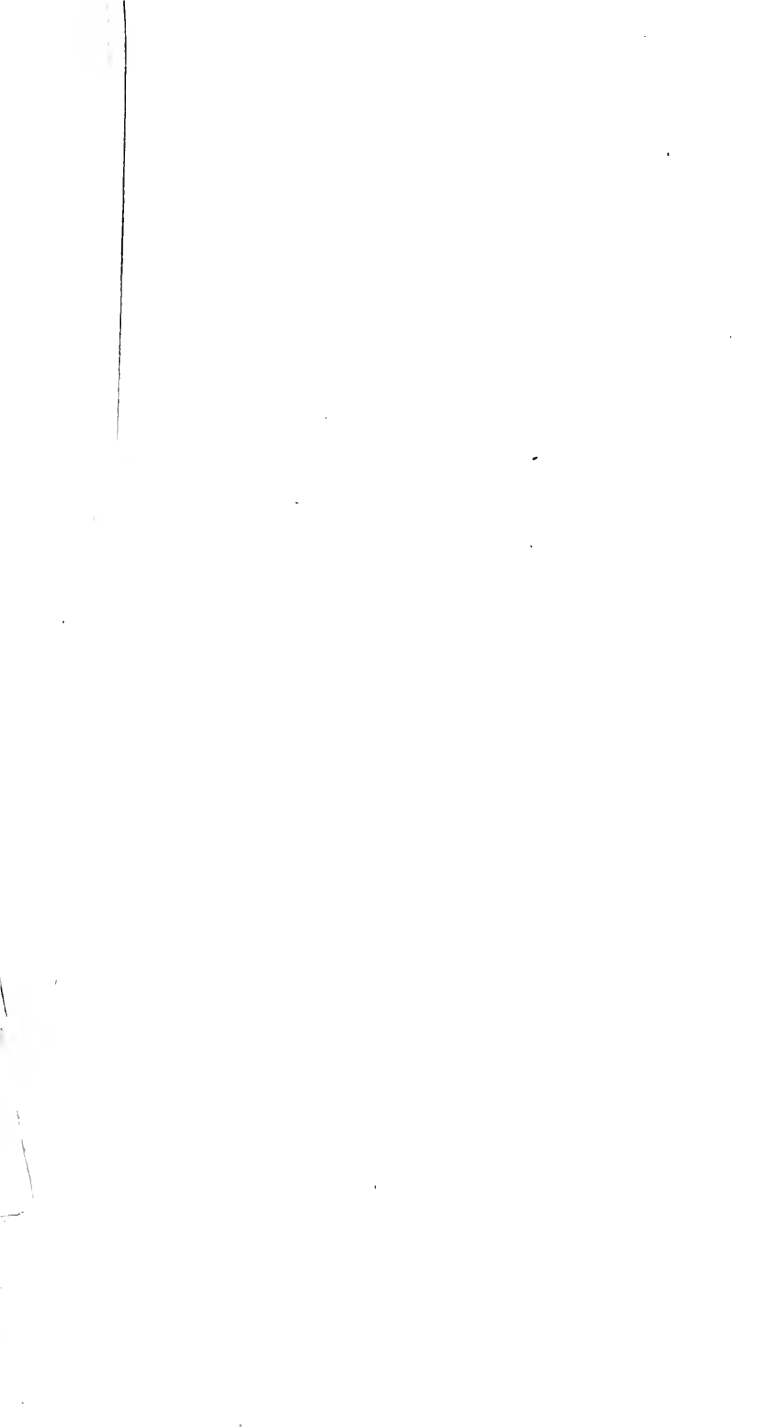


Fig. 17.

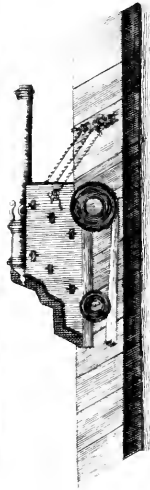
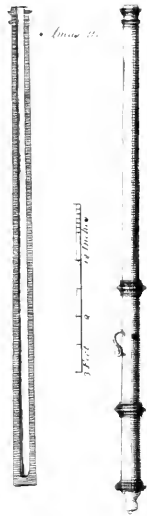


Fig. XXII.

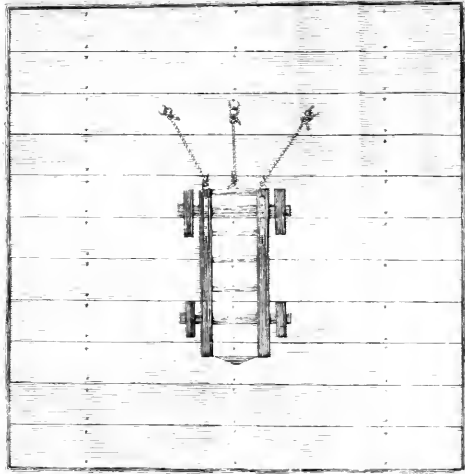
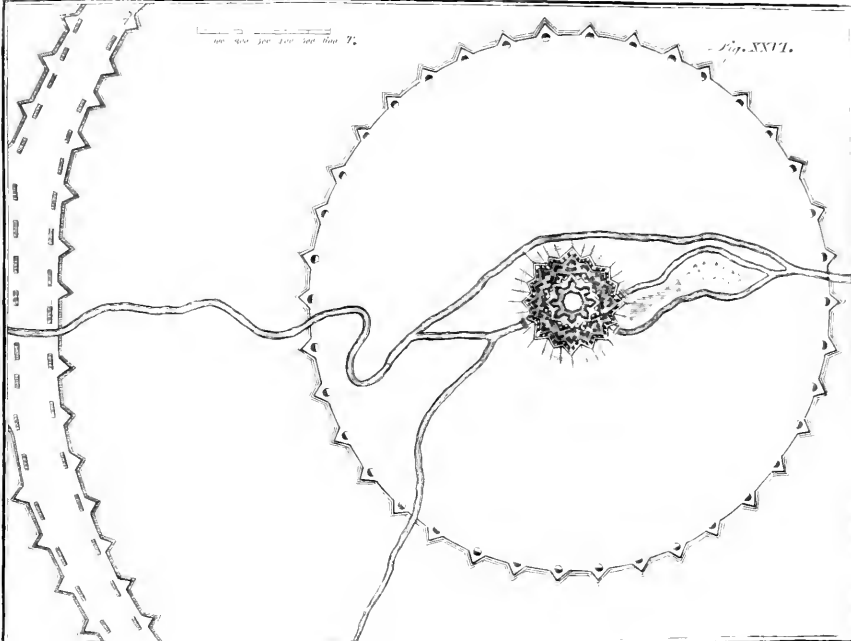


Fig. XXVI.





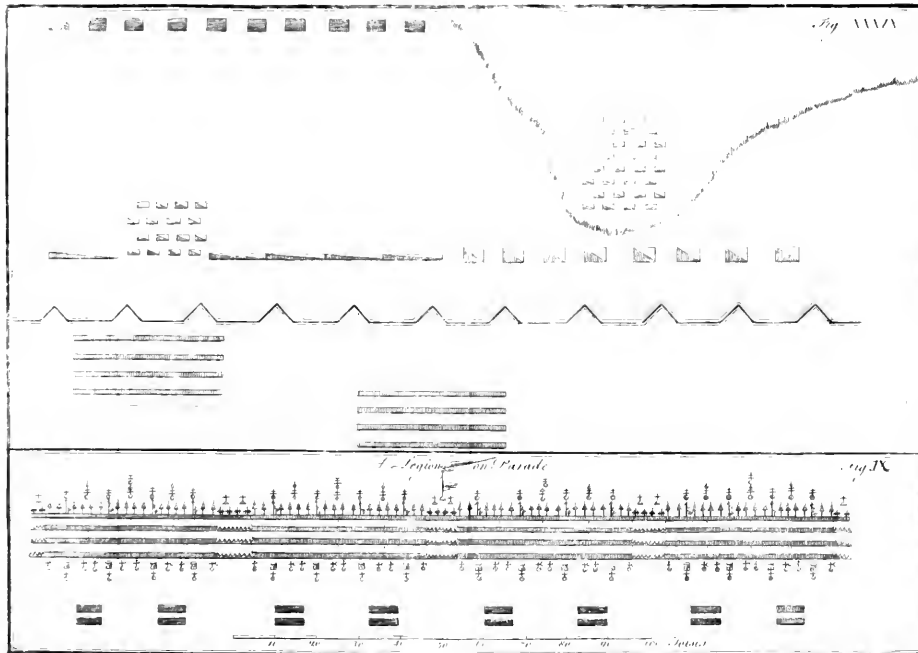
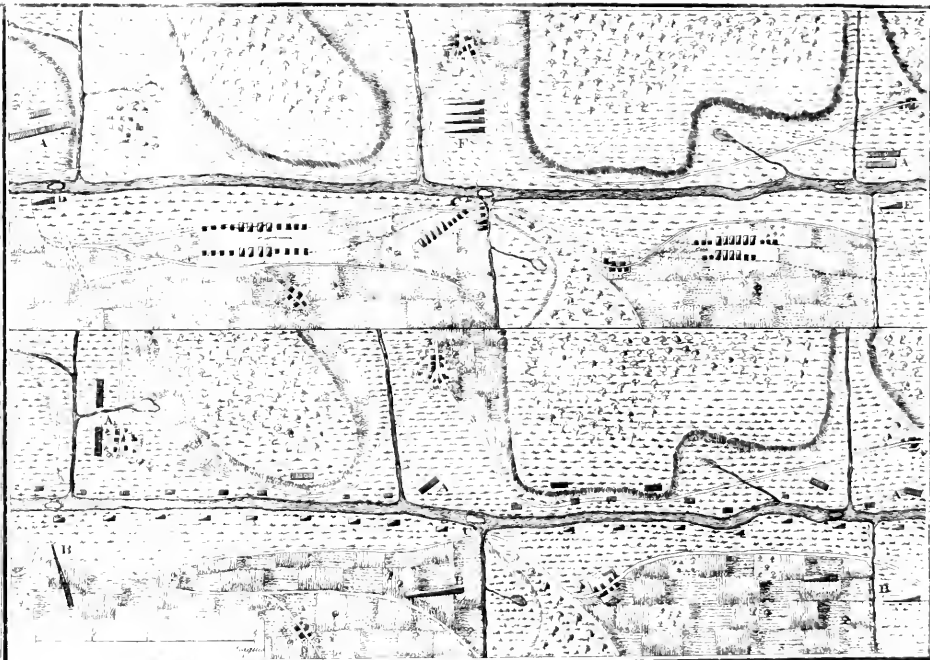






Fig. VII.

Fig. VIII.



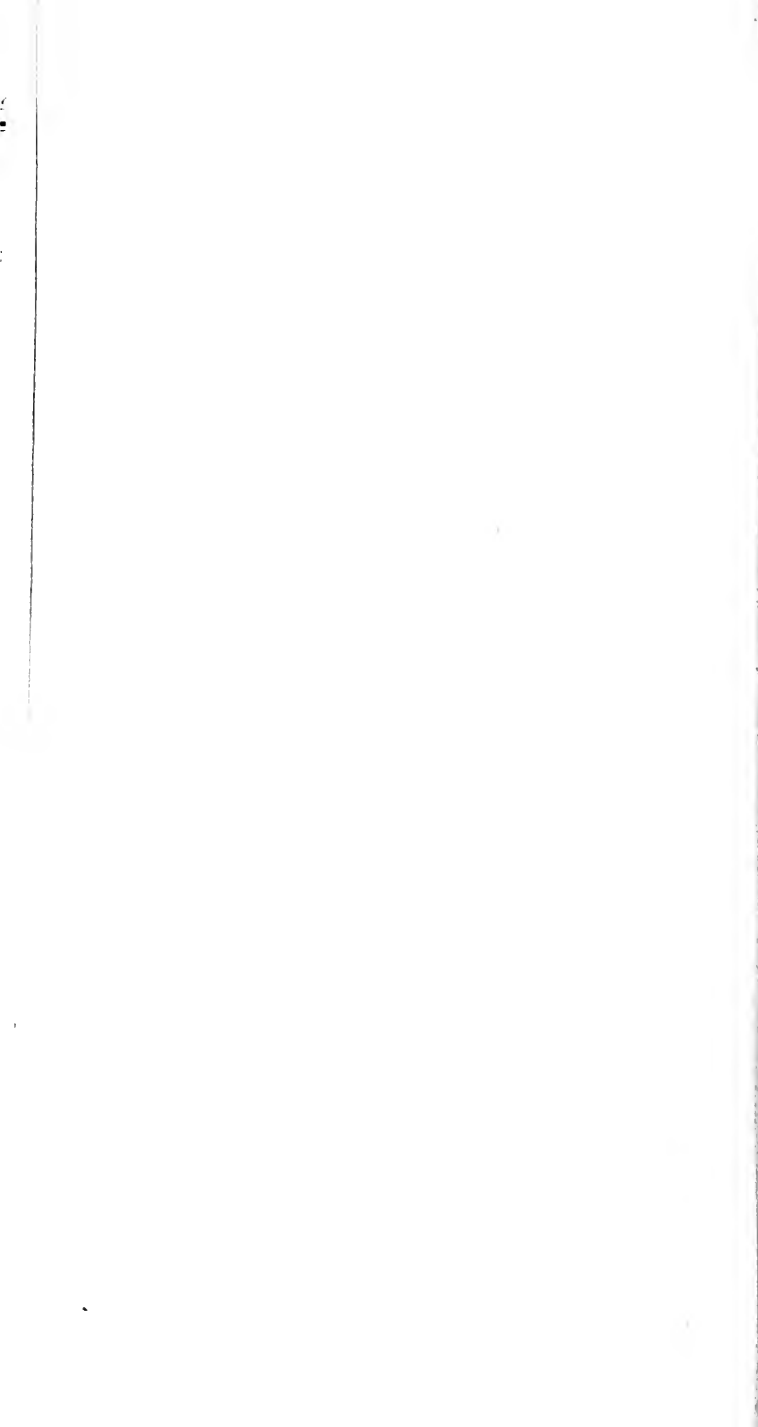


Fig. XIII

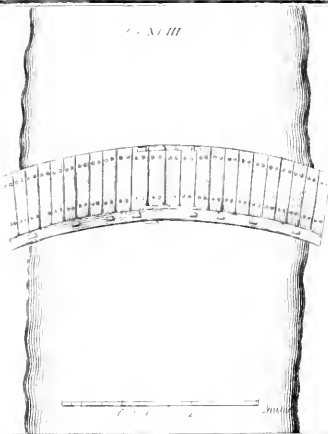


Fig. XIV



Fig. XV

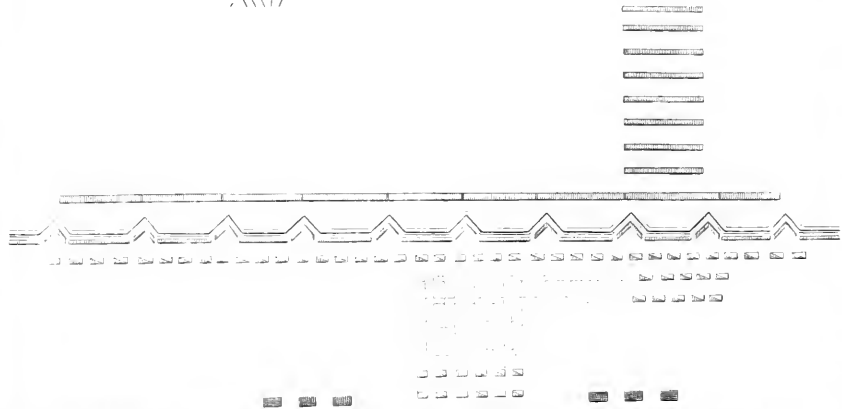


Fig. XVI

Fig. XVI: A perspective view of a structure, possibly a bridge or a large barrel, supported by two vertical posts.



Fig. XVII

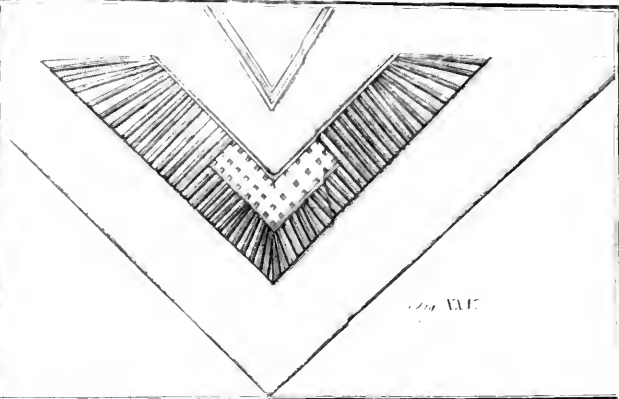
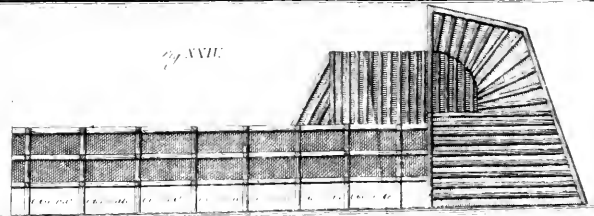


Fig. XVIII





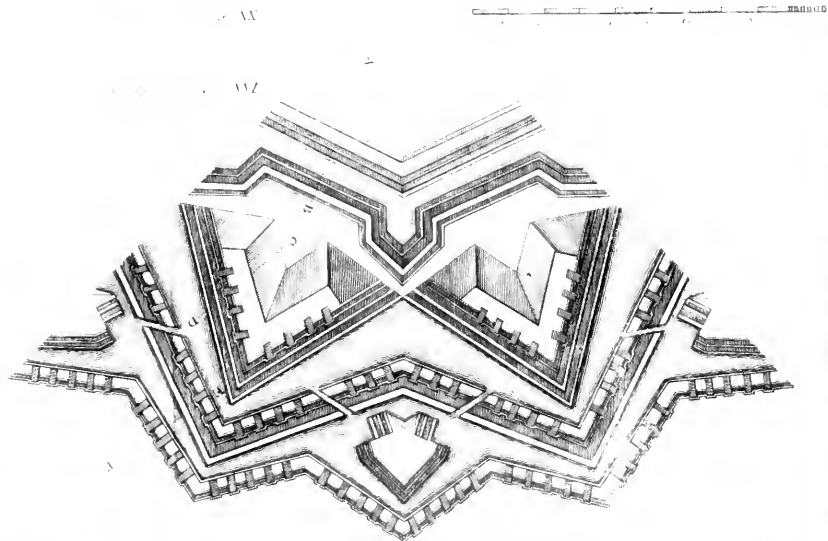
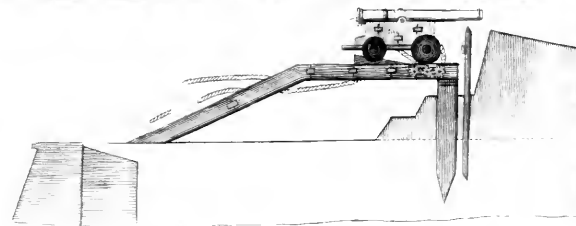
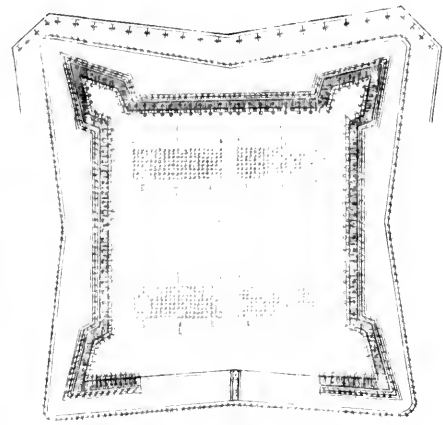


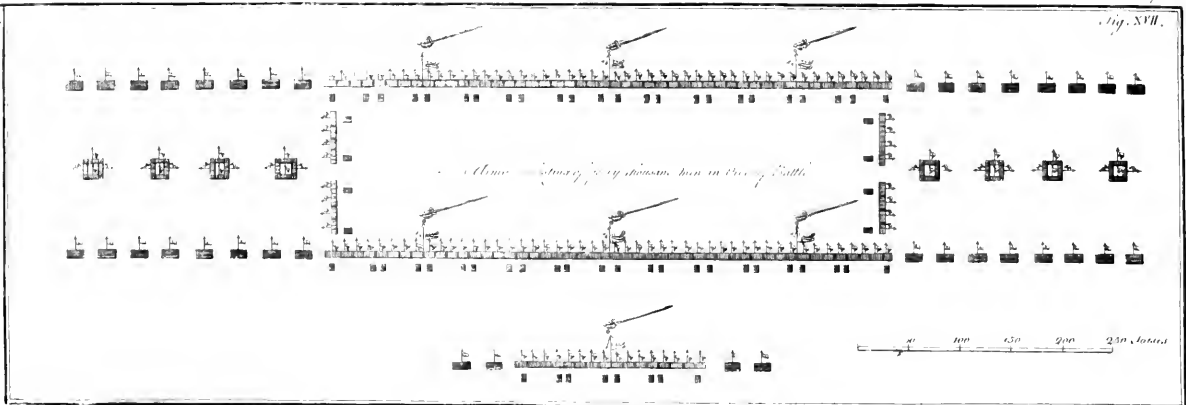
Fig. XVIII.



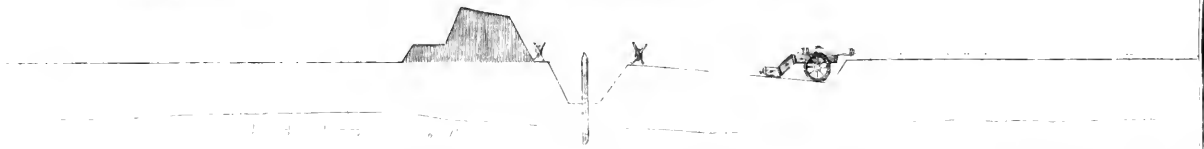




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Chine - Strongly by the sea in the middle



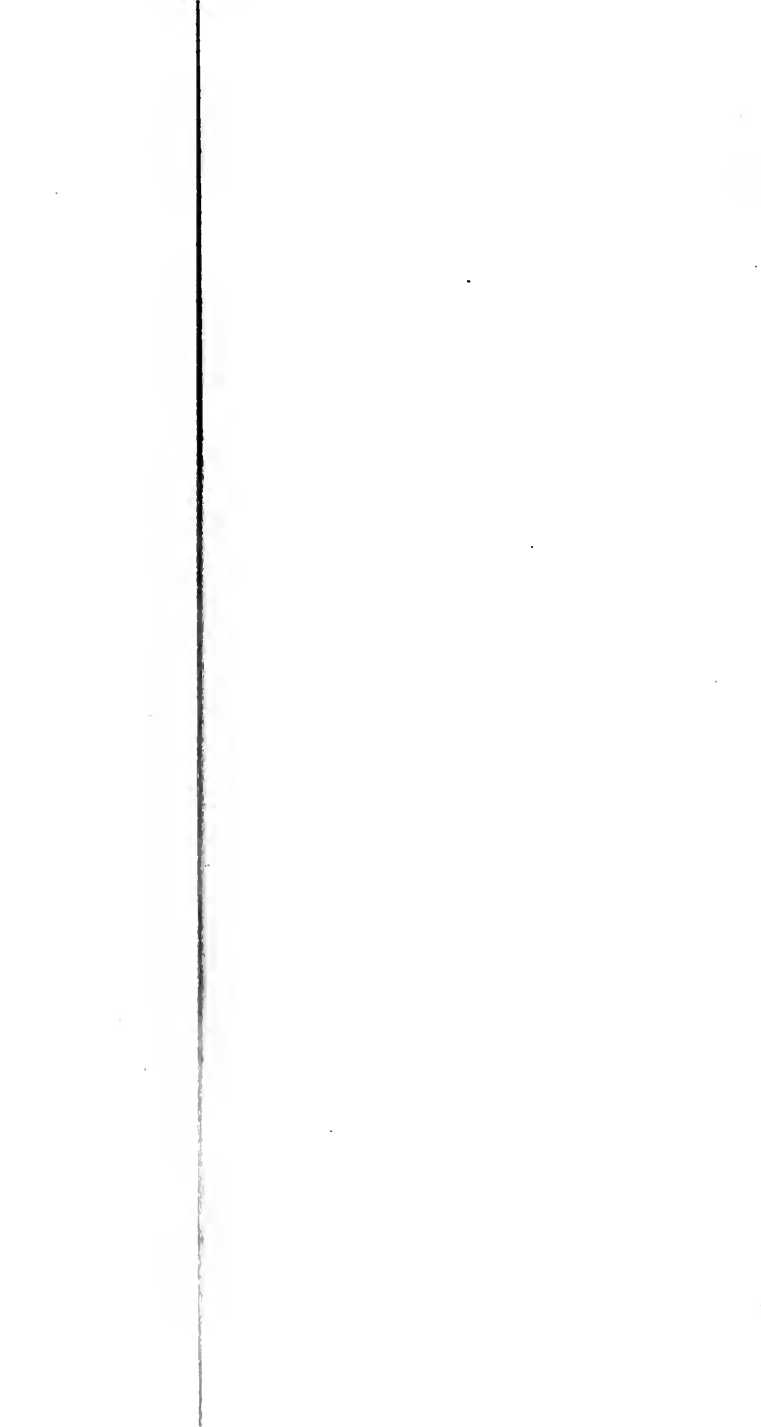




Fig. XXI.

Profile taken upon the lines A B C D E F of the preceding Plan

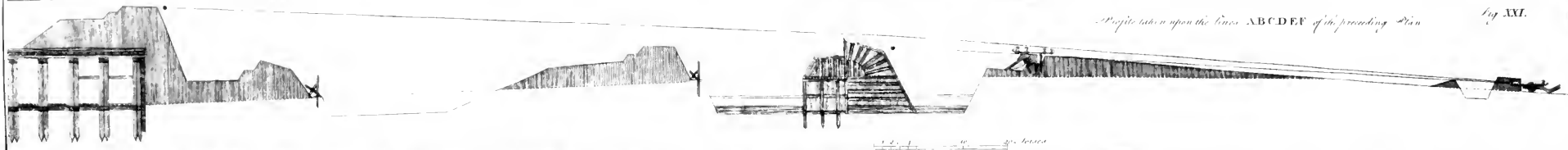
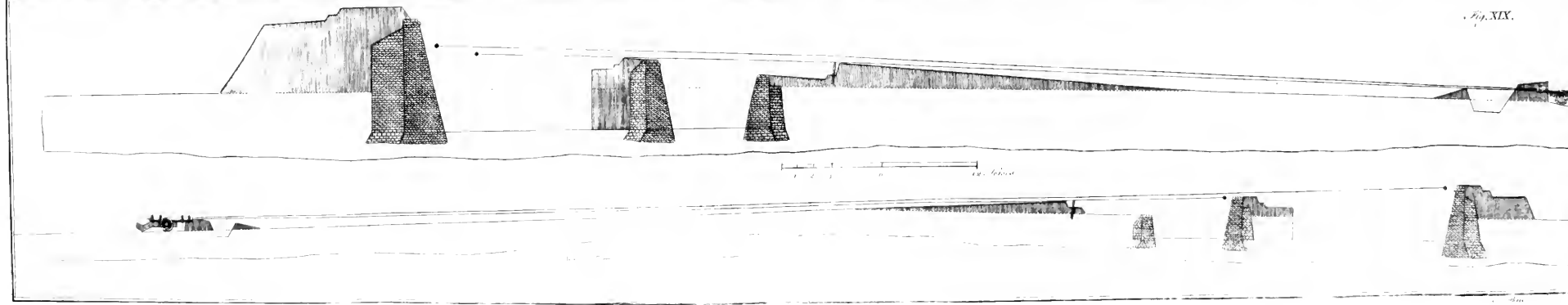
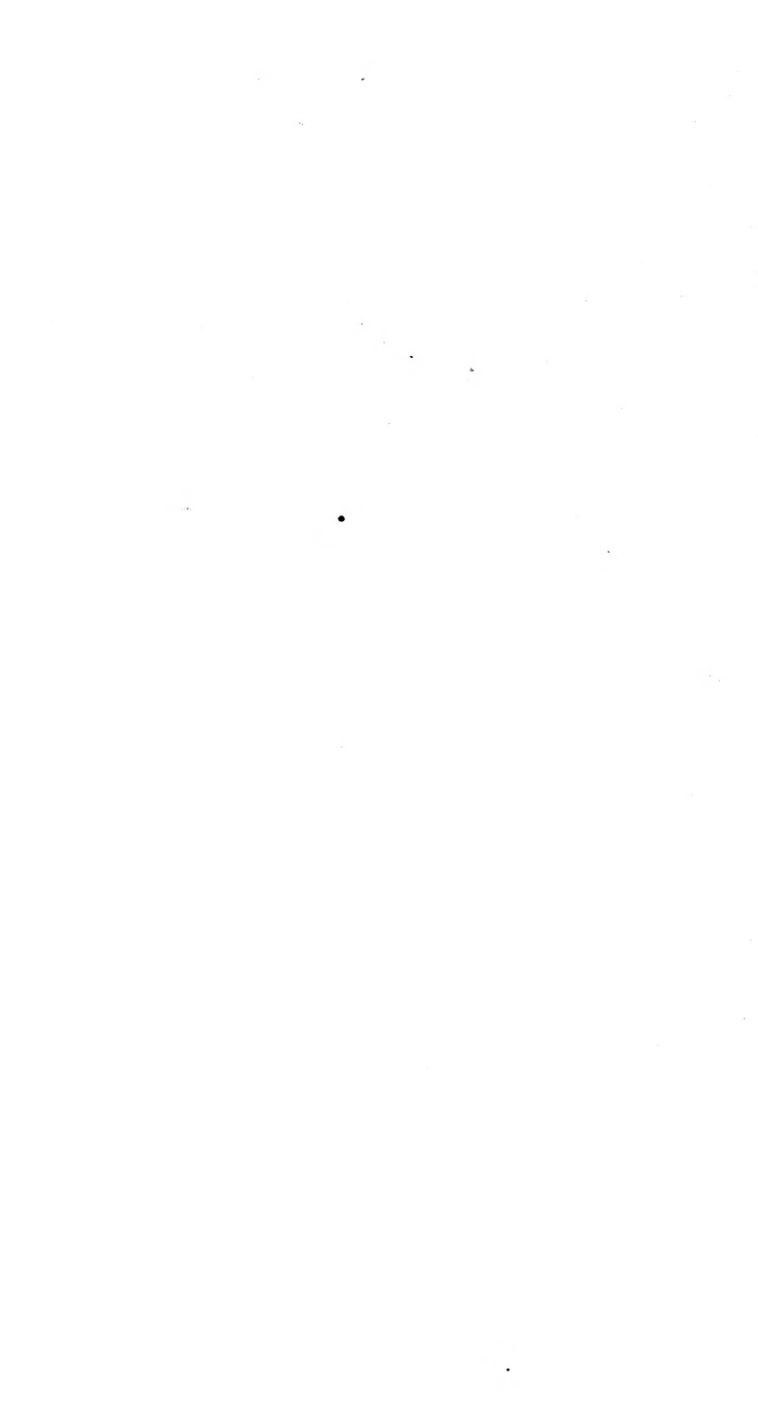


Fig. XIX.





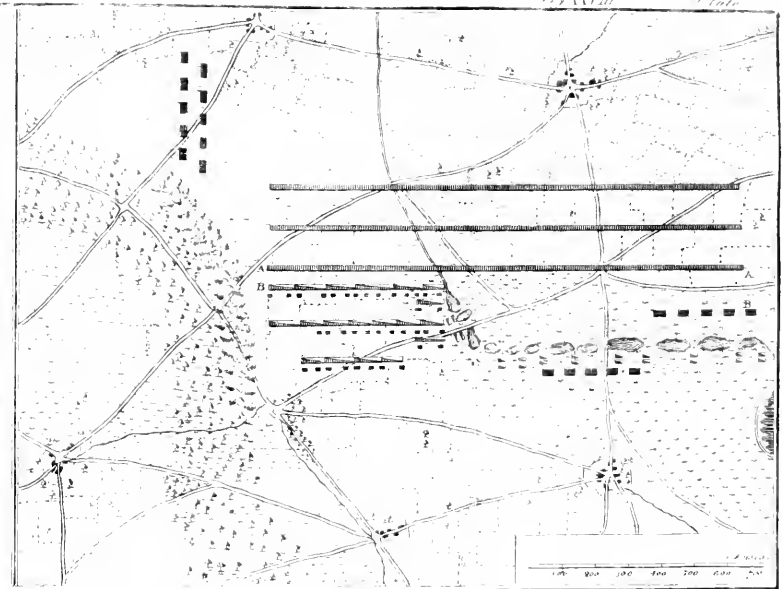
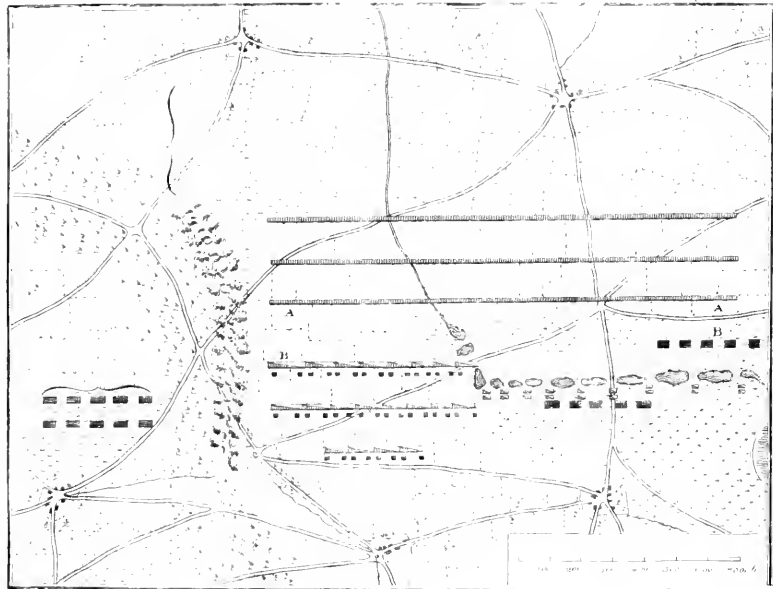




Fig. XXV.

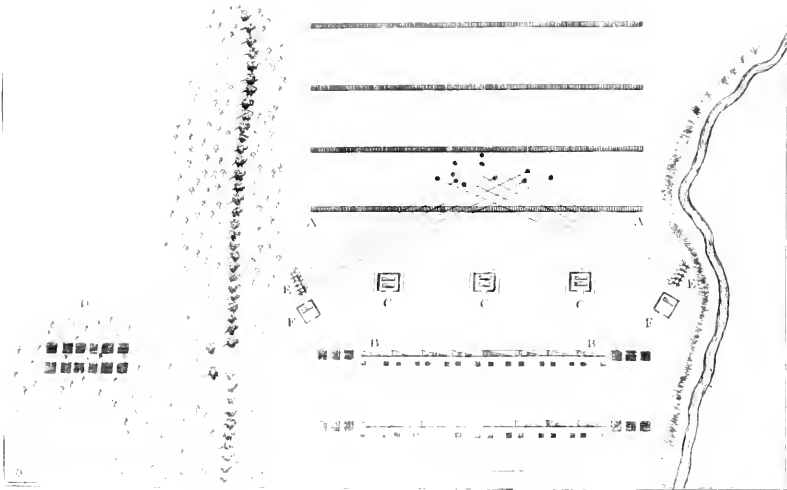
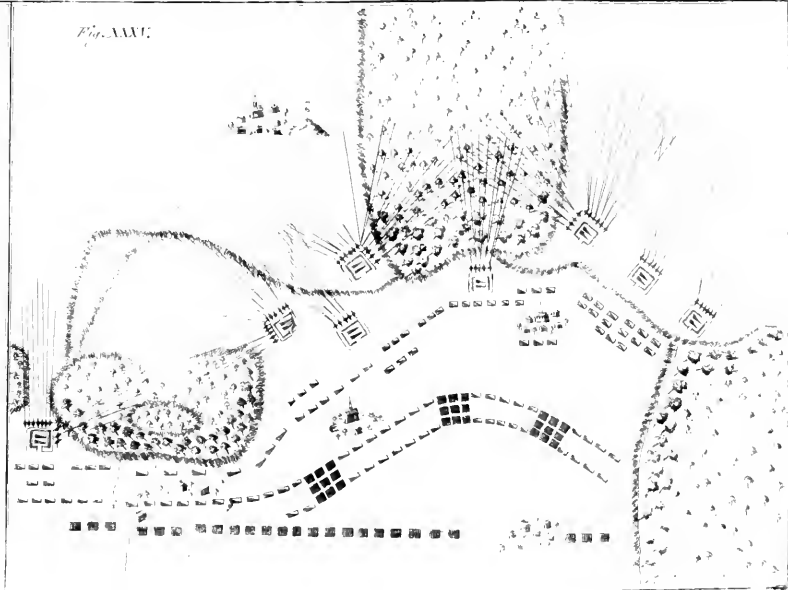
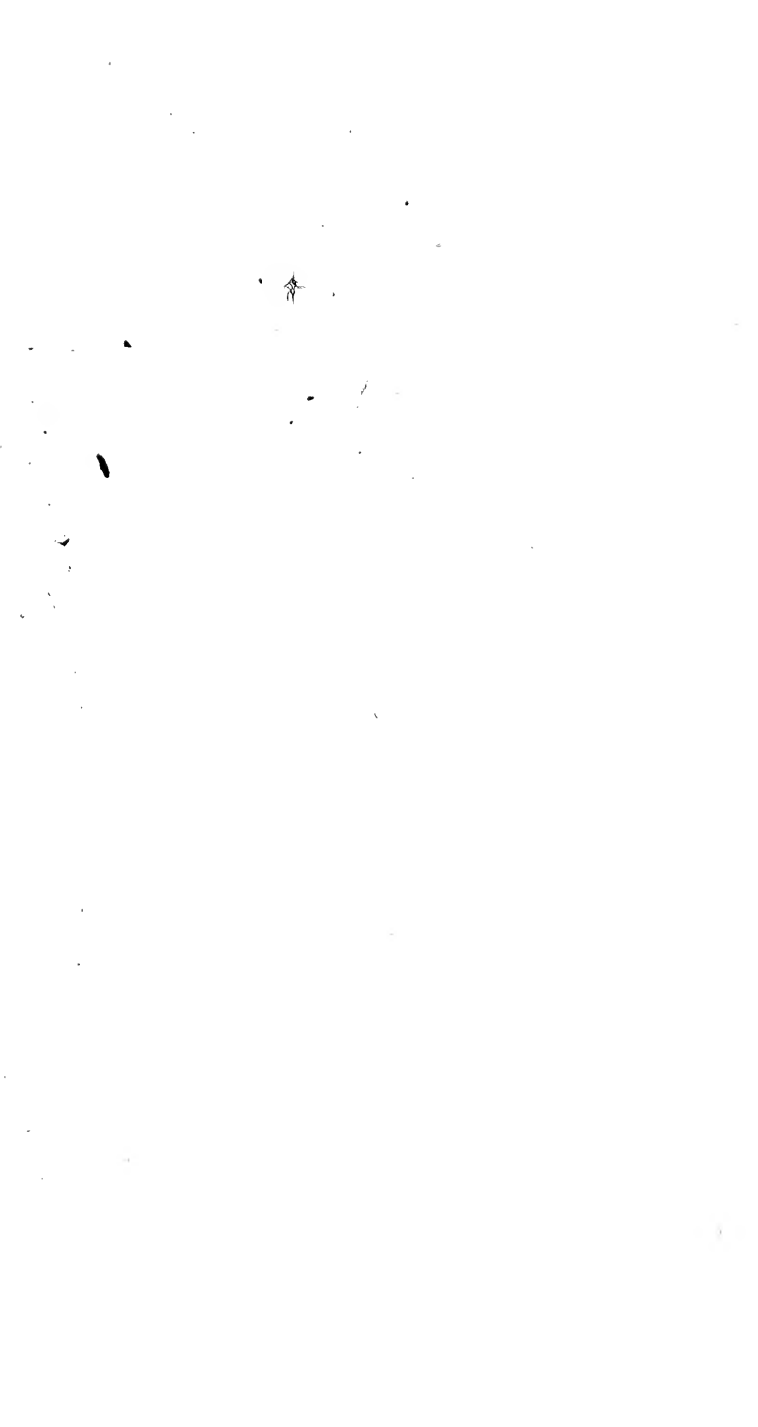


Fig. XXVI.





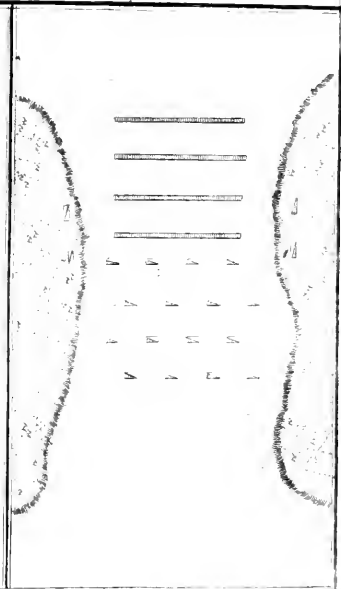
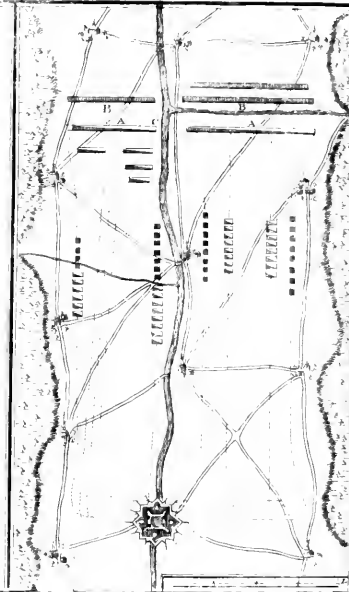
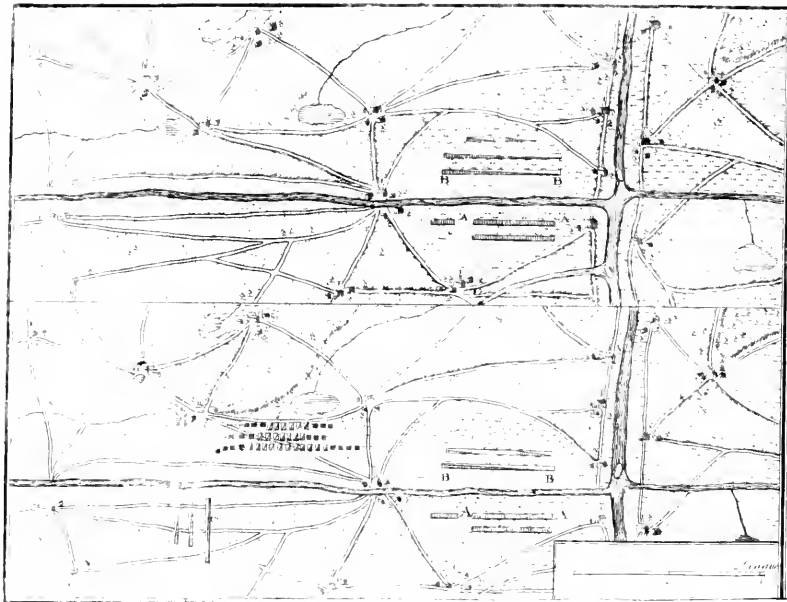






Fig. XXXVII.

The Battle of  
Malplaquet

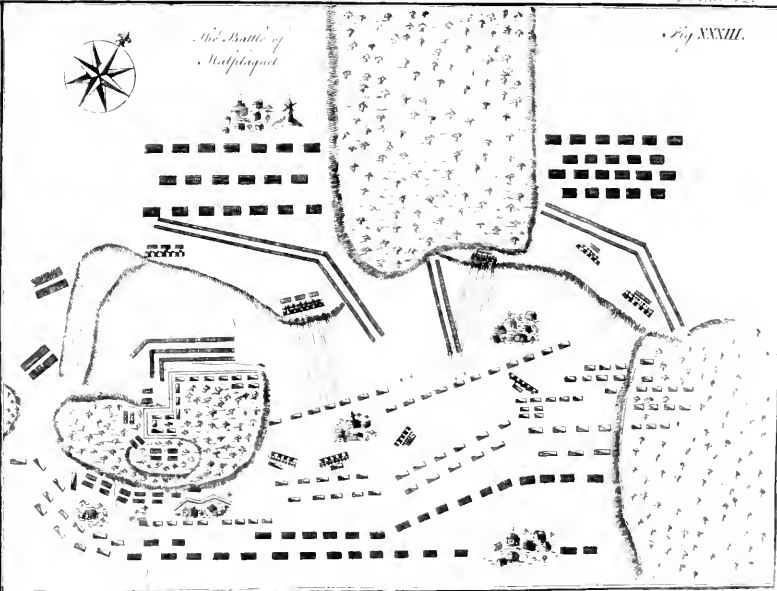
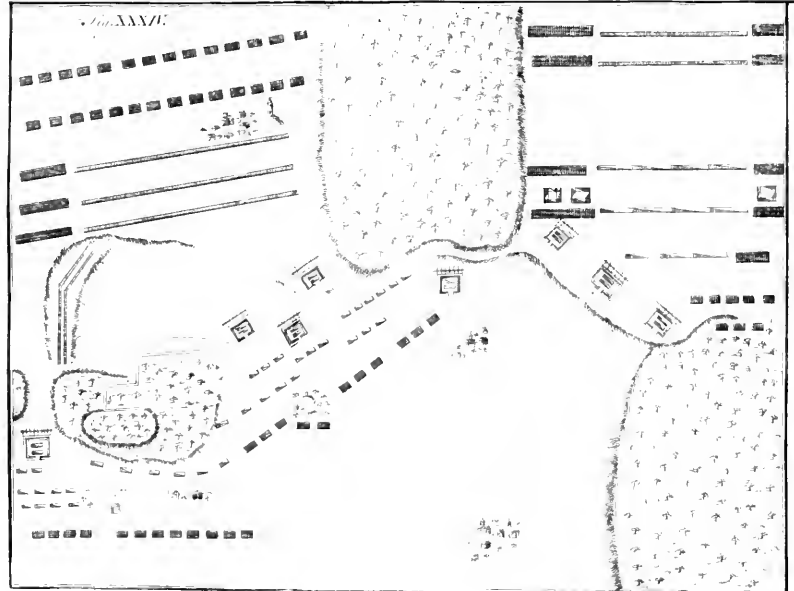


Fig. XXXVI.



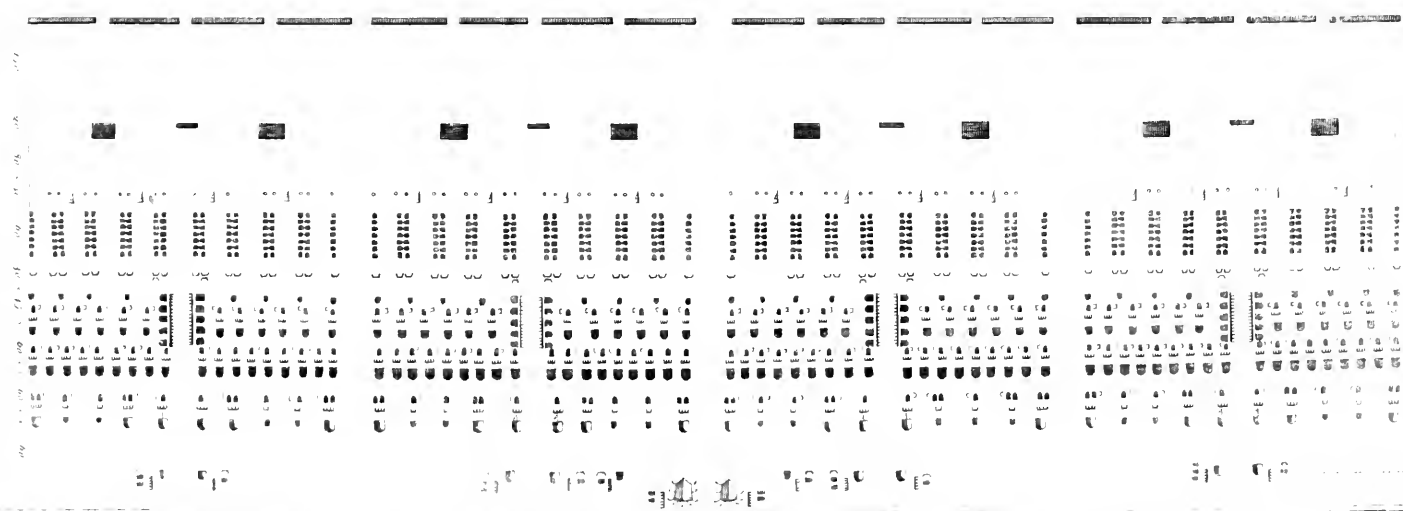


Two Battalions drawn up in the usual Manner.

Order of Battle of a Legion at the head of its Camp ready to attack the two Battalions.

Scale of Feet  
100 200 300 400 500 600 700 800 900 1000

Scale of Feet  
100 200 300 400 500 600 700 800 900 1000



Battalions

General and Staff

Regimental  
Adjutant

Companies and  
Subalterns

Subalterns

Captains

Adjutants  
and Majors

Field Officers







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